REPORT RESUMES

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INSTRUCTIONAL HANDBOOK FOR EDUCATIONAL PSYCHOLOGISTS.
BY- DELLA-PIANA, GABRIEL AND OTHERS
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UNDER THE CHAIRMANSHIP OF R. STEWART JONES, ALONG WITH THE EXECUTIVE COMMITTEE OF DIVISION 15 OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION, A COMMITTEE WAS ESTABLISHED TO STUDY THE IMPROVEMENT OF TEACHING EDUCATIONAL PSYCHOLOGY. THE COMMITTEE SAW A USEFUL PURPOSE IN A HANDBOOK THAT WOULD SUMMARIZE RESOURCE MATERIALS AND THE CREATIVE METHODS AND MATERIALS BEING USED IN THIS COURSE IN VARIOUS INSTITUTIONS. A SYSTEMATIC MEANS OF SHARING THE BEST EXERCISES, RESOURCES, AND METHODS THAT EACH INSTITUTION HAD DEVELOPED WAS THE MAJOR PURPOSE OF THIS EFFORT. MEMBERS OF THE COMMITTEE THROUGH PERSONAL LETTERS TO EDUCATIONAL PSYCHOLOGISTS AT OVER 100 UNIVERSITIES AND THROUGH AN APPEAL IN THE DIVISION 15 NEWSLETTER SOLICITED MATERIALS AND IDEAS. THE RESULT WAS AN INSTRUCTIONAL HANDBOOK FOR EDUCATIONAL PSYCHOLOGISTS. IT IS ORGANIZED IN TWO PARTS. PART ONE PRESENTS RESOURCE MATERIALS FOR THE TEACHER OF EDUCATIONAL PSYCHOLOGY (SUCH AS REFERENCE AND TEACHING MATERIALS, REVIEWS OF EDUCATIONAL RESEARCH, PUBLISHING HOUSES, JOURNALS, TEXTBOOKS AND RESEARCH SUPPORT, FOR EXAMPLE). PART TWO PRESENTS METHODS, EXERCISES, AND OTHER TEACHING MATERIALS (SUCH AS COURSE PROJECTS, METHODS OF INSTRUCTION, LABORATORY EXERCISES, AND RESEARCH SUGGESTIONS, FOR EXAMPLE). (JC)

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UNIVERSITY OF ILLINOIS

INSTRUCTIONAL HANDBOOK FOR EDUCATIONAL PSYCHOLOGISTS

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COLLEGE OF EDUCATION
UNIVERSITY OF ILLINOIS
URBANA, ILLINOIS

INSTRUCTIONAL HANDBOOK

FOR

EDUCATIONAL PSYCHOLOGISTS

College of Education
University of Illinois
Urbana, Illinois

Summer, 1964

This brochure was made possible through a grant from the Cooperative Research Branch of the U. S. Office of Education which supported a seminar and provided funds to complete this work.

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PREFACE

This Handbook is a cooperative venture involving instructors of educational psychology throughout the country. Its inception came when Dr. N. L. Gage, then President of Division 15 of the American Psychological Association appointed the undersigned as a committee to study the improvement of teaching educational psychology. Subsequent presidents, Donald Snygg and Robert Travers have continued official sanction of this work.

Previous committees, both of Division 15 and of the Educational Psychology Section of the National Society of Colleges for Teacher Education have set the stage for this Handbook. At the outset it seemed apparent that previous statements of policy, objectives and content, while they provided direction for the field, pointed also to the deficiencies in the training of those teaching the course and inadequacies in the experiences of the students enrolled in courses in educational psychology. In the face of these deficiencies, the present committee along with the Executive Committee of Division 15 saw a useful purpose in a handbook that would summarize the resource materials and the creative methods and materials being used in this course in various institutions. A systematic means of sharing the best exercises, resources and methods that each institution has developed is a major purpose of this effort.

Having this goal in mind it was clear that a seminar to lay out plans would be necessary. Support for both the seminar and this Handbook was provided by the U. S. Office of Education. The undersigned participants through personal letters to educational psychologists at over 100 universities and through an appeal in the Division 15 Newsletter solicited materials and ideas. The responses while gratifying clearly showed that, in these busy times created by the influx of a great many students, educational psychology courses have all too often been placed in the hands of unsupervised graduate students who use a lecture-discussion method of teaching. Hopefully this Handbook will provide the stimulus to try out the newer media, materials and methods that now exist in increasing abundance.

The Committee wishes to express its appreciation to the many educational psychologists throughout the country who interrupted a busy schedule to send materials. Thanks are also due Mr. Kenneth Brynjolfsson for his work in collecting resource materials and Miss Cleta Conerty and Mrs. Shirley Fryer who handled the production of this manuscript.

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TABLE OF CONTENTS

INTRODUCTION 1

PART I - RESOURCE MATERIALS FOR THE TEACHER OF EDUCATIONAL PSYCHOLOGY

Reference Materials 5
Teaching Materials and Information 7
Sources of Case Study Materials 8
Reprint Series 8
Yearbooks of Learned Societies 9
Reviews, Educational Research (AERA) 11
Major Publishing Houses 12
Instructional Media - Sources of Information 15
Journals and Their Publishers 17
Recent Textbooks in Educational Psychology 20
Research Support 22

PART II - METHODS, EXERCISES AND OTHER TEACHING MATERIALS

Course Projects and Out-of-Class Activities 24
Methods of Instruction and Classroom Operation 60
Demonstrations and Laboratory Exercises 69
Evaluation, Tests and Quizzes 89
Suggestions for Research 102
Comments 104

INTRODUCTION

Systematic study of the child and of learning (in short educational psychology) has been a parallel development with the training of teachers. Early normal schools in Europe (especially Switzerland) included topics on psychology in courses such as the "Art of Teaching." Even as early as 1751, Isaac Watts in his improvement on the mind with a "Discourse on Children and Youth" included a chapter on psychological topics.[1] Dr. Johnson wrote of this book, "Whoever has the care of instructing others may be charged with deficiency in his duty if this book is not recommended."[2] In spite of this early start it was not until the latter part of the 19th century that educational psychology was included in training schools in Britain. The beginnings of educational psychology as such can probably be dated from Pestalozzi whose teacher's institute at Yverdon, Switzerland made the outright attempt to "psychologize education."[3]

In America from the very beginning of the development of teacher training, psychology has played a major role. The first normal school at Lexington, Massachusetts had a course in "mental philosophy" which in reality was a course in psychology, and the normal school at Oswego, New York in 1863 offered a course in "child study." As they continued to develop on into the late 1800's, such institutions almost without exception included a course in educational psychology. The wide acceptance and agreed-upon importance of educational psychology were manifest at the meetings of the National Education Association in 1888 where a number of speakers characterized this field as "imperatively necessary" in the training of teachers.

Shortly thereafter at the turn of the century Edward L. Thorndike, Charles H. Judd, and Lewis M. Terman gave the field what it so badly needed, i.e., an experimental base from which it has grown into a discipline in its own right. Thorndike's first textbook on educational psychology in 1903 might be thought of as the beginning of the modern period.[4]

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[1] Report of the Joint Working Party of the British Psychological Society and the Association of Teachers in Colleges and Departments of Education on the Teaching of Educational Psychology in Teacher Training, Teaching Educational Psychology in Training Colleges, 1962. (This report is obtainable from The Association of Teachers in Colleges and Departments of Education, 151 Gower St., London W.C.1, Price 5 S.)

[2] *Ibid*, p. 9

[3] Blair, Glenn M. *Educational Psychology, Its Development and Present Status*, Bureau of Research and Service, College of Education, Urbana, Illinois, 1948.

[4] *Ibid*., pp. 11 and 12

During the past twenty-five years numerous studies of educational psychology, its texts, methods and content have been carried out. A perspective of the trends in this field in the modern era should provide a useful framework for making decisions about content, methods and materials of instruction.

One of the earliest attempts to come to grips with the content of the field called educational psychology was that of Blair[5] who made a content analysis of eight then current texts in educational psychology. His study clearly indicated the field of such breadth and diversity that many of the concepts given prominence in one text did not even appear in another. Of all the five most frequently used psychological concepts appearing in the eight texts only one word, "psychology," appeared in all eight texts. Blair concluded at that time that students who finished courses using these different books would not speak the same psychological language in dealing with problems of education, and he urged that some agreement be reached as to the basic content of educational psychology.

A few years after Blair's study both the Division 15 of the American Psychological Association and the educational psychology section of The National Society of Colleges of Teacher Education (NSCTE) appointed committees to study the content, organization and methods of educational psychology. The latter committee in the period 1948-1952 took a very active role in defining the purposes, contributions and content of educational psychology. Their work led to publications of:

a. Seven papers on the psychological basis of the modern curriculum in the Journal of Educational Psychology, Vol. 39, 1948, pp. 129-169.

b. Five papers as follows: The Need to Define and Re-orient Educational Psychology; The Relation of Educational Psychology to General Psychology; The Content of Educational Psychology; Educational Psychology and Teacher Education; and Educational Psychology Charts a Course. These papers were in the Journal of Educational Psychology, Vol. 40, 1949, pp. 257-294.

c. Six papers on educational psychology for teachers dealing with the content related to group behavior, measurement, infancy and childhood, adolescence, learning, and individual differences. All six were in the Journal of Educational Psychology, Vol. 41, 1950, pp. 321-372.

d. Four papers on current practice and innovations in the teaching of educational psychology, in the Journal of Educational Psychology, Vol. 43, 1952, pp. 1-30.

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[5] Blair, Glenn M. "The Vocabulary of Educational Psychology," Journal of Educational Psychology, Vol. 32, 1941, pp. 365-371.

The work of this committee over a six-year period culminated in the publication of a booklet, A Guide for Instructors: Educational Psychology in Teacher Education,[6] which will be discussed shortly.

Parallel with the work of the NSCTE Committee, Division 15 of APA appointed a committee to consider the function of Division 15 and its relations with other Divisions. Its report in 1948 defined the field of educational psychology and spelled out its content as including these five major fields or areas.[7]

1. Human growth and development
2. Learning
3. Personality and adjustment
4. Measurement and evaluation
5. Techniques and methods in educational psychology

This committee also argued for the role of the educational psychologist both as a scientist and as an integrator in the sense that he functions as an intermediary between pure research and its application.

A second Division 15 committee in 1952 made a nationwide survey of the courses in educational psychology and the characteristics of instructors who taught them. Their conclusions showed considerable diversity in the kinds of courses offered in teacher training, there being a total of 29 different courses. They also pointed to the fact that many courses in educational psychology and child psychology were being taught by people whose training had been primarily in education, not in psychology; less than half were members of APA. Many also had had no experience in the public school below the college level.[8]

The culmination of the previously mentioned work of the NSCTE whose members were also members of Division 15 was the publication in 1953 of Educational Psychology in Teacher Education - A Guide for Instructors, Ann Arbor, Croft Press. The Guide contained six chapters as follows:

I. The Objectives of Educational Psychology in the Education of Teachers - Harry N. Rivlin

II. Content of Educational Psychology - Frank S. Freeman and Donald Snygg

III. Organization of Content - William Clark Trow and Glenn M. Blair

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[6] National Society of College Teachers of Education Monograph #3, Educational Psychology in Teacher Education, Ann Arbor, Crofts Press, 1953.

[7] Noll, V. H., Horrocks, J. E., and Anderson, G. L. "The Function of the Division of Educational Psychology of the American Psychological Association: A Committee Report," Journal of Educational Psychology, Vol. 40, 1948, pp. 149, 361-370.

[8] Symonds, P. M., Klausner, S. Z., Horrocks, J. E. and Noll, V. H. "Psychologists in Teacher Training Institutions," American Psychologist, Vol. 7, 1952, pp. 24-30.

IV. Methods of Instruction - Warren R. Baller and William F. Bruce

V. Educational Psychology in the Pattern of Teacher Education - Walter W. Cook

VI. Preparation of Instructors in Educational Psychology - D. A. Worcester[9]

Since 1953 there has been little evidence to suggest that conditions regarding the qualifications of teachers of educational psychology or the lack of concordance regarding content have been substantially altered. Recent excerpts from the educational psychology sections of the Annual Reviews of Psychology continue to opine that the field of educational psychology is in a "general state of disorder."[10] Stephens in 1959 cites Averbach's claim that education courses including those in psychology overlap unconscionably[11] and Warburton in 1962 states: "In this applied field (educational psychology) it is extremely difficult to organize the material around a central theme because of the wide range of subject matter and the diversity of methods employed."[12]

At the very outset, the present Committee agreed that a detailed specification of the content of educational psychology was a task that was neither appropriate nor possible within the limitations of this project. We considered it even perhaps undesirable at this time to recommend a "standardized" content for educational psychology. Much of the present variability of content and method reflects not disorganization or confusion but a healthy growth in our field and attempts to rectify the deficiencies cited in earlier studies. Instead of specifying content, we came to terms with what we considered the major functions of educational psychology in teacher training and proceeded immediately to the task of collecting the resources and ideas that would encourage each university to engage in experimental teaching and to share its findings with other institutions.

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[9] NSCTE, Op. cit.

[10] Tyler, F. T. Annual Review of Psychology, Stanford, Stanford University Press, 1956, p. 283.

[11] Stephens, J. M. Annual Review of Psychology, 1959, p.10.

[12] Warburton, F. W. Annual Review of Psychology, 1962, p. 371.

PART I

RESOURCE MATERIALS FOR THE TEACHER OF EDUCATIONAL PSYCHOLOGY

Ready reference to the massive and growing amounts of instructional material is becoming more and more difficult. All who teach educational psychology must realize that it is impossible to keep in mind all the reference works, indexes, texts, paperbacks, films, brochures, etc. that are available. In the following pages of Part I are listed the resource materials relevant to the area of educational psychology, and in most cases an indication of where they may be obtained. Space is provided in each section of Part I for the insertion of other items and the addition of those published subsequent to the distribution of this Handbook.

Reference Materials

American Educational Research Association (1201 Sixteenth Street, N.W., Washington 6, D.C.). Twenty-five Years of Educational Research, Vol. XXVI, No. 3, June, 1956.

Barnes, John B. Educational Research for Classroom Teachers, New York, G. P. Putnam, 1960.

Bloom, Benjamin S. (Ed.). Taxonomy of Educational Objectives: The Classification of Educational Goals, Handbook I: Cognitive Domain, New York, Longmans Green, 1956.

Krathwohl, D. R., Bloom, B. S., Bertram, B. M. Taxonomy of Educational Objectives: The Classification of Educational Goals, Handbook II: Affective Domain, New York, David McKay Company, 1964.

Bowkee, R. R. Co. (1180 Avenue of Americas, New York) Paper-Bound Books in Print (monthly).

Buckland, W. R. and Fox, Ronald A. Bibliography of Basic Texts and Monographs of Statistical Methods, New York, Hafner Publishing Company, 2nd Ed., 1963.

Buxton, Claude E. College Teaching: A Psychologist's View, New York, Harcourt-Brace, 1956.

Daniel, R. S. and Louttit, C. M. Professional Problems in Psychology, New York, Prentice-Hall, 1953.

Dressel, Paul L. & Associates. Evaluation in Higher Education, Boston, Houghton Mifflin, 1961.

Eells, Walter C. (Ed.). College Teachers and College Teaching, An Annotated Bibliography, Atlanta, 881 Peachtree St., N.E., Southern Regional Education Board, July, 1957 - Supplement 1959.

English, H. B. and Ava C. *A Comprehensive Dictionary of Psychological and Psychoanalytical Terms*, New York, Longmans Green, 1958.

Estrin, Herman A. and Goode, Delmer M. *College and University Teaching*, Dubuque, Iowa, William C. Brown, 1964.

Gage, Nathaniel L. (Ed.). *Handbook of Research on Teaching*, Chicago, Rand McNally, 1963.

Good, Carter V. *Dictionary of Education* (2nd Ed.), New York, McGraw-Hill, 1959.

Harris, Chester W. (Ed.). *Encyclopedia of Educational Research* (3rd Ed.), New York, Macmillan, 1960.

McKeachie, Wilbert. *Teaching Tips: A Guidebook for the Beginning College Teacher*,(Fourth Edition) Ann Arbor, George Wahr Publishing Company, 1963.

Monroe, Walter S. (Ed.). *Encyclopedia of Educational Research* (Rev. Ed.), New York, Macmillan, 1950.

National Education Association, Department of Audio Visual Instruction. *Research Abstracts and Analytical Reviews*. See also NEA Brochure listing all publications.

Phi Delta Kappa (Eighth Street and Union Avenue, Bloomington, Indiana). *Research Studies in Education*, 1962.

Savage, I. R. *Bibliography of Nonparametric Statistics*, Cambridge, Mass., Harvard University Press, 1962.

Symonds, Percival M. *What Education Has to Learn from Psychology*, New York, Bureau of Publications, Teachers College, Columbia University, 1958.

U. S. Government Printing Office, *Grants in Aid*, A Bibliography of Selected References, Department of Health, Education & Welfare (45¢).

U. S. Government Printing Office, *Publications of the Office of Education*, Department of Health, Education & Welfare, 1962 (30¢).

U. S. Office of Education, *Projects Initiated Under the Cooperative Research Branch*, July 1, 1956 - September 30, 1960.

Young, Raymond J. (Ed.). *A Directory of Educational Research Agencies and Studies* (2nd Revision), Bloomington, Indiana, Phi Delta Kappa Inc., 1962.

Testing Materials and Information

Most of the major test publishers* not only provide catalogues of their tests, but furnish numerous instructional materials as well. These instructional services include brochures, films, film strips, specimen sets of tests, manuals, statistical aids, research reports, and even packages of material made up for distribution to students. The variety of useful materials may be seen in these sample items, just a few of the hundreds available:

A Glossary of 100 Measurement Terms
Short-Cut Statistics for Teacher-Made Tests
Misconceptions About Intelligence Testing
Identification of the Gifted
The Correction for Guessing
On Telling Parents About Test Results
Making the Classroom Test
Selecting an Achievement Test
Counseling from Profiles

Many of these materials are free or are available for a nominal cost from such test publishers and services as:

Bureau of Educational Research
and Services
State University of Iowa
Iowa City, Iowa

Bureau of Publications
Teachers College
Columbia University
University of New York
New York 27, New York

California Test Bureau
Del monte Research Park
Monterey, California

Cooperative Test Division
Educational Testing Service
20 Nassau Street
Princeton, New Jersey
and
4640 Hollywood Boulevard
Los Angeles, California

Educational Test Bureau
720 Washington Avenue S.E.
Minneapolis 14, Minnesota

Harcourt, Brace & World
757 Third Avenue
New York 17, New York

Houghton Mifflin Company
2 Park Street
Boston 7, Massachusetts

Psychological Corporation
304 East 45th Street
New York 17, New York

Public School Publishing Co.
509-513 North East Street
Bloomington, Illinois

Science Research Associates
259 East Erie Street
Chicago 11, Illinois

C. H. Stoelting Company
424 North Homan Avenue
Chicago 24, Illinois

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*For a comprehensive list of test publishers see Cronbach, L. J. Essentials of Psychological Testing, New York, Harpers, 1960, p. 609.

A standard source for locating tests is Oscar K. Buros, *Tests in Print*, The Gryphon Press, Highland Park, New Jersey, 1961. This book gives 2,126 test titles together with addresses where they may be obtained. The above volume also serves as an index to the previous volumes of Buros *Mental Measurements Yearbooks* (latest 1959) which gives evaluations and critical reviews of all the major standardized tests.

Sources of Case-Study Materials

Berkowitz, Pearl H. and Rothman, Esther P. *The Disturbed Child: Recognition and Psychoeducational Therapy in the Classroom*, New York, New York University Press, 1960.

Buhler, Charlotte, *Childhood Problems and the Teacher*, New York, Henry Holt, 1952.

English, Horace B. *Dynamics of Child Development*, New York, Holt, Rinehart & Winston, 1961.

Horrocks, John E. and Troyer, Maurice E. *A Study of Barry Black; A Study of Connie Casey; A Study of Sam Smith*, Syracuse, Syracuse University Press, 1946.

Horrocks, John E. *The Psychology of Adolescence*, 2nd Ed., Boston, Houghton-Mifflin, 1962.

Jones, Harold E. *Development in Adolescence*, New York, Appleton-Century, 1943.

Millard, Cecil V., and Rothney, John W. M., *The Elementary School Child: A Book of Cases*, New York, Dryden, 1957.

Rothney, John W. M., *The High School Student: A Book of Cases*, New York, Dryden, 1953.

Reprint Series

Offprints of articles appearing in *Scientific American* may be obtained from W. H. Freeman & Company, 660 Market Street, San Francisco 4, California. Sample titles are: What is Memory, Experiments in Perception, Learning to Think, Conditioning and Emotions, Information and Memory, How Children form Mathematical Concepts, Repetition and Learning, Teaching Machines, Early Environment, Problem Solving, and Early Experience and Emotional Development. (20¢ each)

The Bobbs-Merrill Company, 3 West 57th Street, New York 19, New York, provides a reprint series of selected materials taken from a variety of journals and available for classroom use. Catalogues available upon request.

YEARBOOKS OF LEARNED SOCIETIES

Association for Supervision and Curriculum Development, A Department of the National Education Association, 1201 Sixteenth Street, N.W., Washington 6, D. C.

1950, Fostering Mental Health in Our Schools, Caroline Tryon (Chm.)

1952, Growing Up In An Anxious Age, Ruth Cunningham (Chm.)

1954, Creating a Good Environment for Learning, Robert A. Gilchrist (Chm.)

1955, Guidance in the Curriculum, Camilla M. Low (Chm.)

1957, Research for Curriculum Improvement, Arthur W. Foshay (Chm.)

1958, A Look at Continuity in the School Program, Esther J. Swenson (Chm.)

1959, Learning and the Teacher, David H. Russell and Sybil K. Richardson (Co-Chm.)

1960, Leadership for Improving Instruction, Glenn Hass (Chm.)

1962, Perceiving, Behaving, Becoming: A New Focus for Education, Arthur W. Combs (Chm.)

National Society for the Study of Education, 5835 Kimbark Avenue, Chicago 37, Illinois

39th, Intelligence: Its Nature and Nurture: Comparative and Critical Exposition, Part I, 1940, George D. Stoddard (Chm.)

Intelligence: Its Nature and Nurture: Original Studies and Experiments, Part II, 1940, George D. Stoddard (Chm.)

41st, The Psychology of Learning, Part II, 1942, T. R. McConnell (Chm.)

43rd, Adolescence, Part I, 1944, Harold E. Jones (Chm.)

45th, The Measurement of Understanding, Part I, 1946, William A. Brownell (Chm.)

46th, Early Childhood Education, Part II, 1947, N. Searle Light (Chm.)

47th, Juvenile Delinquency and the Schools, Part I, 1948, Ruth Strang (Chm.)

Reading in High School and College, Part II, 1948, William S. Gray (Chm.)

48th, Audio-Visual Materials of Instruction, Part I, 1949, Stephen M. Corey (Chm.)

Reading in the Elementary School, Part II, 1949, Arthur I. Gates (Chm.)

49th, Learning and Instruction, Part I, 1950, Lester G. Anderson (Chm.)

The Education of Exceptional Children, Part II, 1950, Samuel A. Kirk (Chm.)

52nd, *Adapting the Secondary School Program to the Needs of Youth*, Part I, 1953, William G. Brink (Chm.)

53rd, *Mass Media and Education*, Part II, 1954, Edgar Dale (Chm.)

54th, *Mental Health in Modern Education*, Part II, 1955, Paul A. Witty (Chm.)

56th, *In-service Education of Teachers, Supervisors, and Administrators*, Part I, 1957, Stephen M. Corey (Chm.)

57th, *Education for the Gifted*, Part II, 1958, Robert J. Havighurst (Chm.)

The Integration of Educational Experiences, Part III, 1958, Paul L. Dressel (Chm.)

59th, *The Dynamics of Instructional Groups*, Part II, 1960, Gale E. Jensen (Chm.)

60th, *Development In and Through Reading*, Part I, 1961, Paul A. Witty (Chm.)

61st, *Individualizing Instruction*, Part I, 1962, Fred T. Tyler (Chm.)

62nd, *Child Psychology*, Part I, 1963, Harold W. Stevenson (Ed.)

The Impact and Improvement of School Testing Programs, Part II, 1963, Warren G. Findley (Ed.)

63rd, *Theories of Learning and Instruction*, Part I, 1964, Ernest R. Hilgard (Ed.)

Behavioral Science and Educational Administration, Part II, 1964, Daniel E. Griffiths (Ed.)

RECENT ISSUES
AMERICAN EDUCATIONAL RESEARCH ASSOCIATION
(A Division of NEA, 1201 16th St. NW, Washington, D.C.)

Title	Vol.	No.	Date
Statistical Methodology	33	5	Dec 63
Teacher Personnel -- Chap. VII Assessment of Teacher Behavior and Instruction	33	4	Oct 63
Guidance, Counseling, and Personnel Services	33	2	Apr 63
Education of Exceptional Children	33	1	Feb 63
Mental and Physical Health -- Chaps. I, IV & V	32	5	Dec 62
Instructional Materials: Educational Media & Technology	32	2	Apr 62
Educational and Psychological Testing	32	1	Feb 62
Growth, Development, and Learning	31	5	Dec 61
Language Arts and Fine Arts -- Chap. I The Psychology of Language	31	2	Apr 61
The Methodology of Educational Research	30	5	Dec 60
Higher Education -- Chap. VI The Improvement of Instruction	30	4	Oct 60
Guidance and Counseling	30	2	Apr 60
The Educational Program: Adolescence -- Chap. II The Adolescent: His Characteristics & Development	30	1	Feb 60
Education of Exceptional Children	29	5	Dec 59
Human Relations in Education	29	4	Oct 59
The Educational Program: Early and Middle Childhood	29	2	Apr 59
Educational and Psychological Testing	29	1	Feb 59
Growth, Development and Learning	28	5	Dec 58
Teacher Personnel -- Chap. VII The Measurement and Prediction of Teacher Efficiency	28	3	June 58

NOTE: Back issues review research of an earlier period under the same categories as those shown in the titles above.

MAJOR PUBLISHING HOUSES

Getting on the mailing list of some publishers of books and other instructional materials may be expected by members of such organizations as the American Psychological Association and the American Educational Research Association. However one may wish to make inquiries of specific publishers. New instructors especially will want to contact book companies so as to keep abreast of the newly-published materials.

Addison-Wesley Pub. Co., Inc.
Reading, Massachusetts

Allyn & Bacon, Inc.
150 Tremont Street
Boston 11, Massachusetts

American Book Co.
55 Fifth Avenue
New York 3, New York

American Council on Education
1785 Massachusetts Ave., N.W.
Washington 6, D. C.

The American Textbook Publ. Institute
432 Park Avenue, South
New York 18, New York

Appleton-Century-Crofts
1716 Locust Street
Des Moines 3, Iowa

Arco Pub. Co., Inc.
480 Lexington Avenue
New York 17, New York

Association Press
291 Broadway
New York 7, New York

Atherton Press
70 Fifth Avenue
New York, New York

Barnes & Noble, Inc.
105 Fifth Avenue
New York 3, New York

Barron's Educational Series, Inc.
343 Great Neck Road
Great Neck, New York

Basic Books, Inc.
404 Park Avenue South
New York 16, New York

Beacon Press
25 Beacon Street
Boston 8, Massachusetts

The Bobbs-Merrill Co., Inc.
4300 West 62nd Street
Indianapolis, Indiana

William C. Brown Co.
135 South Locust Street
Dubuque, Iowa

Burgess Pub. Co.
426 South Sixth Street
Minneapolis 15, Minnesota

Chandler Pub. Co.
604 Mission Street
San Francisco 5, California

Chilton Books
525 Locust Street
Philadelphia 6, Pennsylvania

College and University Press
263 Chapel Street
New Haven 13, Connecticut

Columbia University Press
2960 Broadway
New York 27, New York

Croft Educational Series
100 Garfield Avenue
New London, Connecticut

Thomas Y. Crowell Co.
201 Park Avenue
New York 3, New York

The Crowell-Collier Pub. Co.
640 Fifth Avenue
New York 19, New York

Dodd, Mead & Co.
432 Park Avenue South
New York 16, New York

Doubleday & Co., Inc.
Garden City, New York

Encyclopedia Britannica Press, Inc.
425 North Michigan Avenue
Chicago 11, Illinois

Follett Pub. Co.
1010 West Washington Boulevard
Chicago 7, Illinois

W. H. Freeman & Co.
660 Market Street
San Francisco 4, California

Ginn & Co.
Statler Building
Back Bay P. O. 191
Boston 17, Massachusetts

Teaching Materials, Inc.
(A Sub. of Grolier)
575 Lexington Avenue
New York 22, New York

Grosset & Dunlap, Inc.
1107 Broadway
New York 10, New York

Grune & Stratton, Inc.
381 Park Avenue South
New York 16, New York

Harcourt, Brace & World, Inc.
757 Third Avenue
New York 17, New York

Harper & Row, Publ.
49 East 33rd Street
New York 16, New York

D. C. Heath & Co.
285 Columbus Avenue
Boston 16, Massachusetts

Holt, Rinehart & Winston
383 Madison Avenue
New York 17, New York

Houghton-Mifflin Co.
2 Park Street
Boston 7, Massachusetts

International Textbook Co.
Scranton, Pennsylvania

International Universities Press, Inc.
227 West 13 Street
New York 11, New York

The Interstate Printers & Publ., Inc.
19 West Jackson Street
Danville, Illinois

Alfred A. Knopf, Inc.
501 Madison Avenue
New York 22, New York

J. B. Lippincott Co.
East Washington Square
Philadelphia 5, Pennsylvania

Little, Brown & Co.
34 Beacon Street
Boston 6, Massachusetts

The Macmillan Co.
60 Fifth Avenue
New York 4, New York

McGraw-Hill Book Co., Inc.
330 West 42nd Street
New York 36, New York

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Morristown, New Jersey

Teachers College
Bureau of Publications
Columbia University
525 West 20th Street
New York 27, New York

University Press of Washington, D.C.
1131 G. Street, N.W.
Washington, D. C.

D. Van Nostrand Co., Inc.
120 Alexander Street
Princeton, New Jersey

Wadsworth Pub. Co., Inc.
Belmont, California

John Wiley & Sons, Inc.
605 Third Avenue
New York 16, New York

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California Journal of Educational Research, by California Teachers Association, (Jan, Mar, May, Sept, Nov), California Journal of Educational Research, 1705 Murchison Drive, Burlingame, California.

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RESEARCH SUPPORT

Federal agencies which provide support for research activities of a psychological or psychoeducational nature together with sources of further information include:

1. Department of the Air Force - Commander, Air Force Office of Scientific Research (ARDC), Washington 25, D.C.

2. Department of the Navy - Psychological Sciences Division. Information free of charge from Contract Research Program, Office of Naval Research, Department of the Navy, Washington 25, D.C.

3. Cooperative Research Program, Office of Education, Department of Health, Education and Welfare (HEW), Washington 25, D.C. (Both major research proposals and small grants up to $7,000.)

4. Educational Media Branch, Office of Education, Department of Health, Education and Welfare, Washington 25, D.C.

5. Office of Vocational Rehabilitation, Department of Health, Education and Welfare, Washington 25, D.C.

6. National Institute of Mental Health - For information write for Public Health Service Publication #415, Vol. 1, Public Health Service, Bethesda 14, Maryland.

7. National Science Foundation - Write for "Grants for Scientific Research," National Science Foundation, Washington 25, D.C.

8. Research Abroad (Fulbright Act) - Write for Department of State Publication "Educational Exchange Grants," Department of State, Washington 25, D.C.

For information regarding the hundreds of private foundations that support research and various innovations in teaching see:

Walton, Ann D. and Andrews F. Emerson (Eds.). The Foundation Directory, New York, Russell Sage Foundation, 1960.

PART II

METHODS, EXERCISES AND OTHER TEACHING MATERIALS

COURSE PROJECTS AND OUT-OF-CLASS ACTIVITIES

Douglas Porter -- Harvard University

Term Paper Assignment

Length: As short as possible, consistent with clarity and completeness. In any event, not over 3000 words except for unusual circumstances.

Topic: You may choose any topic that you feel will be interesting, creative, and/or profitable from your point of view. The only restrictions are that the topic be relevant to some aspect of education (or teaching) and makes use of the principles and concepts of psychology and/or measurement. In general, the intent of the paper is to provide a vehicle for the analysis of educational problems, as opposed to straight, descriptive reporting. The following list of topics is not meant to constrain, but suggest the range of possibilities.

1. A case history or detailed set of observations on the behavior of an individual (student or teacher), or group. Observations must be gathered for some purpose, e.g., to diagnose learning difficulty, explain interactions in a group, etc., and the observations must be interpreted and analyzed with respect to the purposes for which they were made.
2. Analysis of a specific teaching situation, in terms of such things as programming of subject-matter content, teacher behavior, etc.
3. A project to change the behavior of an individual or group, for example, the elimination of obstreperous behavior or fear of public speaking. Should include statement of the problem, procedures, results, and analysis of the outcome.
4. A theoretical extension or application of conditioning or testing principles to some educational problem such as: promotion and grading practices; accommodation of individual differences; judging of teacher competence; engendering of mental health....
5. Critical review of an article, book or point of view in education.
6. An experiment in instruction, involving one or more groups of students, evaluation procedures, and statistical analyses.
7. An imaginative essay, allegory, or fictional piece.
8. Design and trial of a test for some special purpose.
9. Discussion of any psychological theory, concept, or point of view that may bear upon education.

Test Construction Project

Each student is required to construct and turn in a test of achievement designed for use with a unit or segment of instruction in a subject-matter field with which he is familiar. It is intended that the test be developed from your previous teaching, and/or be useful in your future teaching. Normally, the test should be appropriate for one regular class period, but anything that you wish to design the test for is permissable. The project should include the following components: (1) a general description of the test and its purposes; (2) a test outline-index; (3) the test itself; and (4) scoring key and any necessary directions for interpreting the scores.

(1) General Description--The major element in the general description is some form of clear statement of educational objectives of the instruction covered by the test. A very general statement will not be clear enough and a very detailed statement is not necessary; you should strive to describe the objectives on a detailed enough level so that the reader will be able to see which of the objectives are covered by what test items. Also, include a statement about the characteristics of testees and a description of how the unit tested fits into the instructional scheme of the larger course or unit of instruction.

(2) Test Outline--The purposes of the outline are to provide the reader with a simple method of scanning the structure of the test and to provide the test maker with an analytical scheme for keeping track of the coverage of the test.

(3) The Test--In addition to the test items of essay, multiple choice, completion (or any form you think suits the test purposes), there should be instructions to the test administrator and directions to the students on how to do the items.

(4) Scoring Key and Directions for Interpretation of Scores--For "Objective" questions provide a convenient scoring key with directions for use along with instructions for weighing items and partial credit. For essay and other forms of "free response" item provide a sample answer, at the least. Even better, provide a set of sample answers to cover the range of variation expected, or a detailed scoring procedure that prescribes the elements to be sought in all answers.

Interpretation of the scores should consider such factors as: acceptable levels of performance and diagnostic recommendations to be made on the basis of various patterns of responses.

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Leslie H. Squier -- Reed College

Each of our students (chiefly sophomores, although each class is represented) is required to do an experiment, a field observational study, or a paper focusing on the experimental literature in some area of psychology. There is a somewhat lengthier section on statistics, incorporating the logic of science and some points on experimental design, than is customary in introductory courses. We spend some time on tests of intelligence and on other kinds of testing at two periods in the course.

Jerome Seidman -- Montclair State College

Analysis of Observed Mother-Child Relationships--Plan to observe two or three mothers shopping with their children. Supermarkets, toy stores, department stores, and dime stores are excellent places to find them. Record the observed episodes in as much detail as necessary. Point out the immediate circumstances as well as the words and actions of each mother and child. Summarize what seem to be the salient characteristics of the mother's behavior toward the child. Note the type and amount of control used by each mother, as well as the degree of acceptance, protectiveness, and indulgence present in her behavior. Characterize the behavior of each child, particularly his responses to the words and actions of his mother. Did he appear to be, for example, submissive, compliant, defiant, cooperative, demanding, or dependent? Through what media other than speech do the mothers you observed communicate with their children? Does this nonverbal communication work both ways?

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Betty Harrison -- Brigham Young University

The exercise which has been of most interest to me is having students do group research. They divide into groups on the basis of interest or common fields of subject matter, develop a hypothesis, prepare a research design, and carry out the research in the form of a capsule study. They write up this research project with a critical statement as to the results, recommendations for further research, and limitations inherent in the project. It seems the student learns far more from this experience than from merely discussing or reading research reports. Also, some students have been encouraged to go on for graduate work when they find out research can be quite enjoyable.

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Robert Grinder -- University of Wisconsin

Field-Work Assignment

The principal claim that can be made for the concept of culture is that it helps us enormously in predicting human behavior. To a degree, all individuals share common interpretations of the external world, but because human needs vary according to age, time, place, etc., people acquire distinctive ways of life from the society in which they live. Thus, if we know something of a particular cultural context, we know what individuals within it expect from each other.

Sociologists have long endorsed the assumption that adolescents in western societies engender their own unique customs, behavior patterns, and values. Among the more striking aspects of the youth culture is the apparent relationship between peer status and adolescent tastes in clothing and manners of dress. Consider, for example, the following: (Bernard, Jessie, "Teen-Age Culture: An Overview," Ann. Amer. Acad. Arts and Sci., CCCXXXVIII (1961), p. 9).

> "The clothes a boy wears definitely elevate or lower his social status. When a boy dresses in the current fashion, it shows that he knows what's going on and is not 'out of it.' On first impression a boy is rated on his appearance--either tweedy or cloddy, as the case may be.
>
> "To rate well socially, a boy should look as tweedy as possible. This means wearing tan raincoats, crew-neck sweaters, button-down oxford cloth shirts, khaki, corduroy or flannel pants, and loafers or sneakers. Not only must he wear these clothes, but he must choose the correct style in each. Sweaters should be in neutral or dark shades, shirts are white, blue, or pinstriped, and the pants are continental or at least tapered and slim in the legs.
>
> "A boy may be considered a clod if he wears flannel or non-button down shirts, baggy pants or deviates from the traditional crew-neck style sweaters. Shoes with laces (oxfords) worn with casual clothes are also in poor taste.
>
> "A girl may also be socially rated as to the clothes she wears. Girls dress to look tweedy or collegiate. Tweedy girls wear button-down blouses or round or pilgrim collar blouses; pleated, bandstand or flared skirts, wool crew-neck or fur-blend sweaters, knee socks and loafers. ... Girls should beware of rayon-type or felt skirts, and low socks. Sneakers are being replaced by loafers in the really 'in' groups. ...Most of the kids I know feel that sharp clothes indicate a hep personality."

Obviously, styles change from time to time, but the invariance of the relationship between being "well-dressed" and "rating well socially" probably holds. Therefore, in this assignment, you are to assess for yourself the relation between peer status and current customs in the clothing and dress among adolescents.

Procedure: 1. Select from the class four adolescents of the same sex for observation, two of whom appear to be the best dressed in class, and two of whom appear to be the least well-dressed.

2. Carefully observe the salient features of their taste in clothing and their manner of dress. In the instance of girls, evaluate also the propriety with which they employ cosmetics.

3. Make a series of short time samples for each subject.

Answer the following questions:

1. What relationships do you see, if any, between the "sharpness" of your subjects and their general self-confidence? Explain.

2. Do you see a relationship between patterns of style and dress and peer status?

3. Do you think that any of the adolescents whom you have observed in this assignment are alienated from general adult standards and tastes in dress and style? Explain.

4. If being appropriately dressed affects an adolescent's relations in the youth culture, how might you as a teacher help him develop sophistication in this area?

According to anonymous student critiques, the student pre-teaching program is fulfilling its aims with the new format. Among the typical comments showing that students gained confidence in their potential ability to teach, learned to apply the principles of psychology to real-life situations, and increased in their understanding of adolescents were these:

> "I feel that this field activity has been one of the most helpful preparations for my role as a teacher. We have gotten to see first-hand the problems--disciplinary and otherwise--that a teacher faces both in and out of the classroom."
>
> "It has enhanced the subject material of the course and has made the theories of adolescent psychology applicable. Without the field activity, Educational Psychology 310 would have just been another psychology course."
>
> "The field activity allows us to observe the pupils instead of teach them. I think it offers a greater insight into pupil viewpoint than if we were teaching."

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John Check -- University of Michigan

Suggested Activities for the Observation Student

Depending upon the teacher, grade, or subject you are observing and also upon your own competence and self-confidence, you might wish to suggest to your teacher that you be permitted to participate in and/or carry out some of the following worthwhile activities:

1. Tutor an individual or work with a small group of students on a special problem.

2. Check papers (in class only).

3. Conduct a discussion of current events.

4. Make and use flash cards and other manipulative devices with a small group.

5. Select a film related to the subject matter, show the film, and conduct a discussion.

6. Demonstrate a simple experiment in science.

7. Help with bulletin boards or other displays.

8. Find materials related to class and bring them into class.

9. Read poetry or a story to the class.

10. Observe a parent-teacher conference.

11. Learn to run a duplicating machine.

12. Take children to the library; help them select books for (a) room deposit, (b) reference, (c) individual use.

13. Assist in planning and supervising a play period.

14. Assist in health programs of the schools--clinics, vision tests, weight, etc.

15. Select two students who seem to represent extremes of ability and observe their classroom behavior. Record brief impressions of their behavior during each observation and try to assess.

16. Compile a listing of all instructional materials available for the classroom.

17. Using a class roster, keep a careful check of the verbal activity in the various total group teaching situations. You might use two columns to indicate when questions, directions, commands, etc., are initiated by the teacher or by the various students.

18. Help individual students or groups with oral work.

19. Help individual students or groups with clarification of assignment instructions.

20. Hear individual book reports or reviews.

21. Be watchful for newspaper clippings pertinent to classroom discussions.

22. Alert class to worthwhile T.V. shows or magazine articles which pertain to classroom study.

23. Attend a P.T.A. meeting.

24. If possible, attend a school board meeting.

Reporting a Specific Behavior

During the semester when you will be observing children's behaviors and classroom activities, you may wish to concentrate some of your attention on a particular child or a specific incident. The following questionnaire should help you to direct your attention to some of the more salient features of an observable act.

Behavior Inventory

1. Describe the incident briefly____________________.
2. What caused the teacher to take note of this incident?__________.
3. How did the teacher approach the child?
   a. Was the teacher tense or relaxed?
   b. Did he use tact and an easy manner?
   c. Did he get near the child?
   d. Did he look at the child?
   e. Did he smile or frown at him?
   f. Did he touch him?
4. How did the teacher give guidance to the child?
   a. Was it verbal in nature?
   b. Was his verbal direction positive or negative?
   c. Did he give tactual guidance?
   d. Were the remarks of the teacher directed to a child or were they directed to the entire group?
5. How did the child respond?
   a. What did he do or say?
   b. Did he respond positively or negatively?
   c. What were his facial expressions?
   d. Did the child appear nervous, frightened, angry, subdued, pleased, elated?
6. What do you think the child learned from this incident?
7. How did the other children react to this?
8. How did the teacher react to the child's responses?
   a. Did he punish or reproach the child?
   b. Did he show approval or reward him?
   c. Did he attend to other activities in the classroom very soon after?
   d. Was the teacher able to regain control of the room and become poised again?
9. Criticize the teacher's approach to the child.
   a. Positive______________________________
   b. Negative______________________________

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John F. Check -- University of Michigan

Problem Areas and Activities

Physical Growth as Related to School Progress

1. Interview four teen-agers regarding a person whom they want most to be like. Analyze and draw implications from these interviews.

2. Secure from four of your friends an account of how they learned "the facts of life." Tape-record these accounts. Analyze.

3. Interview ten adults in which you discuss their feelings about their physique (or motor skills) as a child or as an adolescent. Record their responses and write an interpretation of these interviews.

4. Select a basic problem in some phase of physical growth and conduct a control-study for a three-month period. This will necessitate setting up the problem, gathering and analyzing the data, and a report to the class.

Social Development in School and Community

1. Survey two different neighborhoods in your community (poor and wealthy). Gather pictures, make drawings, write descriptions of the typical dwelling unit in each. Make special note of child and teen-age activities. Talk to the children, and perhaps, to the parents as to the play activities these children participate in and the interests and attitudes they display.

2. Role play: A child comes to you in need of urgent help in the area of adjustment. Describe what you would do first. What would you do after that? What means and/or instruments would you employ? What will be the anticipated outcomes of your help?

The Emotional Life of an Individual

1. Interview a clergyman, a parent, and a teenager to obtain a description of how the teenager reacts to a death in the family. Discuss significant phases of these interviews. Draw conclusions.

2. Portray a person's manifest behavior under conditions of using the various defense mechanisms in reaction to stress.

3. Interview at least 20 people from various age groups to determine the common fears they have. Try to find out the causes of these fears. Using a graph you have prepared, summarize the data you have obtained and draw conclusions and implications.

Intelligence Affecting Progress

1. You are the principal of a school in which you wish to abolish any type or form of intelligence testing in your system. Summon all necessary defense for this proposal. It is your responsibility to persuade your staff, the board of education, the community and the pupils to accept your program. Assuming our class is each of these parties, make your presentation but in an abridged form.
2. Same as No. 1 but you wish to intensify the program of intelligence testing.
3. Role play the following: Jimmy has an I.Q. of 145, comes from an above-average home, but is doing failing work in school. He is also a discipline problem. You have called the parents in, and at present are sitting with them to discuss Jimmy's problem.

Understanding and Concept Formation

1. Using foreign (entirely different) symbols, develop an alphabet. Implement this new symbolism into sentences, and finally into short stories (3 to 4 sentences). A picture related to each story can be placed above the story. Finally, demonstrate to the class the value of such an activity.
2. Searching through various kinds of printed and pictorial materials, make a list of statements which will depict situations where faulty concepts are being formed. Pictures or other examples which produce a deceptive context are most useful. An example of a statement which might give a faulty impression follows: the child who related he liked the hymn about the cross-eyed bear turned out to be "The Cross I'd Bear."

Reasoning in Problem Solving

1. Prepare an extended list (25-30) of unique problems or problem situations to distribute to the class. Using one of these problems, demonstrate to the class how you would teach problem-solving to the learner.
2. Formulate a research study in which your problem will center around the area of problem-solving. Write up your proposal showing the sequence of steps you would take in investigating this problem. A limited bibliography of sources you would use would be most desired.
3. Same as No. 2, but concentrate on setting up and carrying out to its completion such an experimental study.

Motor and Language Skills

1. Motor and/or language impediments will in most situations prevent normal developmental progress of an individual. List 12 specific cases, giving the nature of the impediment, its origination, its development, measures used to combat or resolve the problem, and its present condition.

2. Develop an experiment in which your objectives will be to teach (by conditioning) a child or children to obtain facility in an unusual motor or verbal skill. List the steps you have used in conducting the experiment and be ready to present to our class a summary of results you have obtained. Bringing the subject you have conditioned to our class would facilitate your demonstration and improve your presentation.

Attitude Formation

1. You wish to alter the attitude your students in class have. Develop a technique you would use in creating a change toward a specific attitude or bias. Implementing this device, demonstrate to our class what changes might occur.

2. Construct an instrument or technique which you would use on a group of prejudiced people (we all are) to show that these people are inclined toward selective perception.

Motivation and Reinforcement

1. Assume our classmates are your students. You wish to motivate these pupils in a certain direction. Demonstrate to us the methods you will employ in getting these students to want to learn a prescribed subject, process, or attitude. Following the demonstration, evaluate your success and/or failure in light of the subject you used, the student body, your methodology, and other pertinent aspects.

2. Same as No. 1. Here, however, use three or four kindergarten or younger children.

3. Gather numerous specimens of ways teachers (or parents) use in reinforcing children. Display this in our class and react to these various extrinsic rewards that are used.

Retention and Transfer

1. Using five or six of our class members show that transfer actually does occur while learning takes place. Mirror tracing, typing, Katona's Match Stick problems are only a few techniques which have produced positive results.

2. Gather various instruments (including a memory drum) which are presently used in measuring and evaluating the amount and kind of retention that takes place. Bring these to class and demonstrate the way they are employed.

Individual Differences

1. Develop as complete a list as possible of the various techniques and approaches that teachers devise and utilize in accommodating each individual student in class. To do well on this project, it will be necessary, among other things, to consult or to interview a number of teachers.

2. Interview 30 to 40 students (grades 1 through 12). Find out how these students' teachers had failed them in providing for their individual needs. Present your findings to our class, giving suggestions as to how these individuals could be helped.

Discipline and Classroom Organization

1. Using a tape recorder, interview 20 teachers as to discipline problems. Prepare beforehand a list of questions you will ask these teachers. Encourage spontaneous comments. Condense the most interesting parts of each interview in preparation for class play back.

2. Role play a typical classroom scene in which a rather serious discipline problem occurs. Show how you will handle this problem and project our class into possible repercussions your ways of disciplining may have.

Testing and Achievement Appraisal

1. Prepare an elaborate defense for the use of tests and testing techniques in use in our modern schools. Procure as many of these tests and devices as you can, describe them and give us the positive and negative qualities of each. Show how you will use these in final *evaluation of the student's work* and progress.

2. Role play a parent-teacher conference.

3. Role play the following: Jimmy, who comes from a very demanding home, receives his report card on which three Ds and one E are recorded. He now is handing the card to his parents.

Modern Innovations in Teaching

1. Prepare an exhaustive list of devices now used in the classroom which might be considered modern innovations in teaching. Bring as many of these to the class as you can; show how they are used, and point out the strengths and weaknesses of each.

2. Conduct an experiment in which programmed learning, as used with a teaching machine, is part of the teaching-learning process. Summarize your data and draw conclusions for us.

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Donald T. Graffam -- Dickinson College

A Field-Study Approach to Educational Psychology

From the first meeting, the class of thirty students is divided alphabetically into small groups of five or six, labelled "Committee A," "Committee B," etc. Each group is stationed at a laboratory table.

The operating unit for learning during the traditional phase is the individual student; thereafter, it becomes the small group piloted by its elected chairman. Occasionally, for purposes of discussion and for progress reports or final reports, the whole class is led by two elected co-chairmen.

The success of the program hinges on the role of the cooperating teacher who provides the opportunity for a given committee to observe for a six weeks' period the behavior of a boy or girl selected by her as the "Subject." The Subject, who may be any child ranging from kindergarten through the sixth grade, is eventually given an appropriately fictitious name by the committee--Ready Kilowatt, Connie Complex, Freddie Fringer--a name usually alliterative and somewhat allegorical. Every caution is taken to protect the anonymity of the child being observed. To the knowledge of the writer, none of the 110 children studied so far has discovered his role in the field-study program a result made possible by careful pretraining of students and teachers in a code of ethics prior to their entrance into the field-study phase of the course.

From its inception, the field-study approach as practiced at Dickinson College has been an adaptation of the Prescott Child Study Method, now familiar to more than 100,000 teachers and graduate students in twenty American states and in many countries of the free world. The amazing thing to the consultants and to the instructor, formerly a full-time consultant to Texas school systems engaged in the program, is the degree of facility displayed in one semester by Dickinson students in procedures normally not understood except by three-year graduate students.

The theory and techniques of the standard program are discussed in detail in Prescott, which is used as a handbook by Dickinson students during the field-study phase. In sharp contrast to the traditional approach to studying about the learner in general this method presents a blueprint for understanding a learner in the flesh and blood. This blueprint entails a plan of action for learning about a learner by observing him carefully, recording samples of his behavior over an extended period of time, discussion of these anecdotes with members of the group engaged in the same task, hypothesizing about one or more patterns discovered to be characteristic of the child's behavior, and validating these hypotheses against the total data in the record. The last step leads to gathering more data and revising the hypotheses.

Each group is shown how to collect information about a learner in a scientific or systematic way by utilizing a number of sources of information: (a) direct observation, (b) school records, (c) conferences with present and former teachers, (d) work samples of the child, (e) conversation with the child and his peers, and (f) home visits whenever feasible--though for reasons of security home visits, an important source in the standard graduate program, are obviously discouraged in our use of the field-study approach. At the same time, the group is taught how to write a good anecdote--how to make descriptions of behavior correspond with actual events. Encouragement is given to study the basic sciences of man to master as much knowledge as possible about human behavior.

The tangible goal and outcome of the field-study approach is the anecdotal record--The Record of Cindy Slipshod, for example--and its sociodramatic presentation to the class. The typical record is sixty or seventy pages in length and carries a table of contents something like this:

Dedication 1
Acknowledgments 2
Introduction of Members of the Study Group 3
Introduction to the Dickinson Child Study Program 4
Introduction to, and Naming of, Our Subject 7
Class Description, Room Plan, Class Schedule 9
Background Data on Our Subject 12
Anecdotes 16
Work Samples of Our Subject 33
Analysis of Art Work 37
Hypotheses 39
Evaluation of Hypotheses and Revised Hypotheses 42
Pertinent Findings from Library Research 46
Conclusions 60
Recommendations 63

Seven or eight copies of the record are made, one copy being retained by the instructor and one being presented to the cooperating teacher. All copies are treated as restricted materials in accordance with the code of ethics referred to above.

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Dr. Frank Jex -- University of Utah

A Case Study Approach

1. Arrangements are made with local school districts to allow educational psychology students to pick out a public school pupil for a case study. The student takes the responsibility for finding a pupil and getting parent permission.

2. Students are given suggestions for making a case study.

3. Activities are suggested for getting case study data relevant to copies in the educational psychology course. For example, when

discussing "Teen-age Life Styles," Dr. Jex suggests an autobiography and hand out "Suggestions for Autobiography" which is to be read by or to the pupil being studied prior to obtaining the autobiography. It is simply suggestive and need not be followed item by item. Also, he reads to the students autobiographies written by previous pupils for a case study. When discussing self-report tests or the assessment of personality, Dr. Jex hands out what he calls a "School Sentence Completions" test. A copy of the test including responses of a bright, disturbed high school junior girl follows in "School Sentence Completions...."

4. The student submits a completed case study. Not all students obtain the same kind of data. Some give interest tests, interview parents and teachers, observe the child in many situations, obtain sociometric data, etc.

5. Students find the course interesting when handled this way. Transfer is presumably enhanced. Also, our colleagues in teacher training are more satisfied that we are sincerely trying to offer a "service course" for their students.

Suggestions for Autobiography

Childhood Experiences

What are the first things you remember from your childhood, and why do you remember them?

What sickness or injuries have you had which worried you? How have they influenced your life?

What trips or travels have you made, and what do you remember best about them?

How many special playmates did you have? How did you get along with them? What part did you usually play in the things you did together?

What things did your parents, your friends and your teachers want you to do which you didn't like? What did you do about these things?

What are the things you have failed at, and how do you feel about them now?

What kinds of things are you most afraid of, and why?

What are the most pleasant experiences you remember from your childhood?

Home Background

In how many different places have you lived? How have you liked each place?

What are your brothers and sisters like? How do you get along with them? Do they do things which you especially like or don't like? How would you change them if you could?

What things have happened at home to make your family most happy? What things have made them most unhappy?

What type of punishment is used in your home? What kind of praise?

What things do you do together as a family to have fun? Tell about any special customs, or celebrations, or holidays in your family.

School Experiences

Discuss your ideas on dances, parties, and sports.

Do you like mixed parties, or do you prefer recreation which is limited to members of your own sex?

In seeking recreation, do you like to join with others, or do you prefer to be by yourself?

Personal Interests and Hobbies

What interesting things have you made or done?

What kind of work have you found most interesting?

What collections have you made? What are your hobbies?

What books have you read that you liked very much?

What defects and shortcomings have you recognized in yourself? How would you change yourself if you could?

What persons do you admire most?

Future Plans

What are your ambitions?

What are your parents' ambitions and plans for you?

What great ideals do you have?

What interesting things have you thought of doing?

If you could do anything you wanted to do for a living, what would you like to be doing ten years from now?

What are your plans with respect to marriage and a family?

"The Black Sheep of the Family"

I am a girl of 18. I am from two families. I have never been close to either one of them. I am what you call the black sheep of the family. I am an illegitimate baby. When I was five months old my grandfather took me away from my mother. I grew up and lived all my life with my grandparents. I never knew my grandfather not my real father. When I was six months old my mother got married. She and her husband never adopted me. Her husband never liked me at all. He would have nothing to do with me. So I was raised by my grandmother. When I was a year old my mother had a baby girl. She took to her like everything. She forgot about me. She had two other children, a boy and a girl. My grandmother really didn't like me either. She had fourteen of her own kids and I guess really didn't have time for me. But I liked her. Her kids treated me really nice. I liked them an awfully lot. My mother's youngest daughter would always follow me around and she would take after me. Her father would blow up every time he saw us together. He wouldn't touch her, because she was just a young kid, but he would lay into me but good. Then my grandmother would give me a real good scolding. My childhood was like this all the time. Until I was 13 years old it was like you would say nothing but a life of hell.

When I turned 13 I wanted to go to church all the time. That was my own choice. My grandmother would take me anytime I wanted. I finally was baptized. I loved going to church. But then it got so I didn't go any more. I don't recall why. I just didn't.

I didn't get along with any of my friends. They didn't like me because of my family background. When I got into junior high I started doing things and going places on my own. I never ask or told anyone and they didn't care besides.

When I got in high school things changed. I liked high school and everything but I just couldn't do the work. The teachers would call me an odd-ball or something. They passed of course. I had quite a few friends by then. I started running around with this crowd. They weren't rough or anything but people thought they were and they didn't like them. They told me so. But I didn't care.

I've actually gone to see a psychiatrist. He tried to help me. He did in some ways. He said I was just mixed up. I didn't know what I wanted. I went to him for two months. I liked him; we talked a lot. In the end I came out better than I went in. He got me a job. I did different things. I even paid my own way through school, bought my own clothes. My mother did buy me a few clothes or she would give me some of her old clothes. I never did have much.

My grandmother's kids were nice to me. Especially one of them. He's twenty-six. Before he got engaged, he would take me uptown about once a week and buy me a suit or pair of shoes. But this only last for one month. He found him a girl and didn't bother about me. He would give me maybe a dollar or something like that, but that would be all. I like his fiance very much. She likes me too. She helps me with some of my homework and we are always talking. But I never go anywhere with her. I go around with exactly six girls now. I'm kinda going with a real nice boy. He quit school. But we have fun. I am on my own now. I do what I want to do, go where I want. I've had exactly five razor strap beatings. But they don't bother. I've forgotten about most of my past. I don't feel sorry for myself, even if it sounds like I do. I don't whatsoever. I've grown to like every one of the people in my two families except my mother's husband. I don't hate him, but I certainly do not like him. My life as previous has been pretty good. I don't live with any member of my family. I live by myself now and I am very happy now. I guess really my younger life wasn't too bad. But I certainly wasn't very happy with it. Sometimes I wish I could live it over again.

School Sentence Completion (Of the Girl Above)

1. What I like most about school is . . . nothing. I dislike it and occasionally sluff.
2. I like teachers who . . . are fair and explain their subjects well.
3. In school what matters most is . . . adjusting to life and learning to work.
4. When other students make fun of me . . . I sometimes laugh, and sometimes am offended.
5. School would be alright if . . . they segregated students according to learning ability.

6. My main ambition . . . is to be a writer.
7. When I get a low grade . . . I feel like killing myself.
8. If I didn't have to go to school . . . I would study at home.
9. Cheating in tests . . . is a wide-spread practice.
10. The trouble with most teachers is . . . they think they are superior in every way and are uninterested.
11. In school what embarrasses me most is . . . the aloofness of other students.
12. I could do better in school if . . . I was more secure socially.
13. The school subject I like most is . . . I don't particularly like any of them.
14. The school subject I like least is . . . gym.
15. The trouble with school dances is . . . nobody dances.
16. I could hate another student who . . . gossipped about me.
17. In school I suffer most from . . . boredom.
18. I sometimes wonder whether . . . life is worth living.
19. The trouble with school is . . . I can't adjust to it.
20. Schools should teach you more about . . . everything in general.
21. My looks . . . are very much wanting in beauty.
22. Religion in the schools . . . is a good idea, but most people would object.
23. The clothes you wear to school . . . are appropriate and variable.
24. Homework . . . should be abolished or teachers should get together on it.
25. School friends . . . are something I lack.
26. In school I can't understand what makes me . . . so bashful and self-conscious.
27. Boys . . . are not attracted to me.
28. The main difference between home and school is . . . at school you live an act, are not yourself.
29. In school I worry most about . . . making friends.
30. I couldn't get along in school without . . . lunch period.
31. What really hurts is when the teacher . . . bawls me out.
32. In school one must never . . . say what one really things.
33. Girls . . . are cruel to each other.
34. When the teacher calls on me . . . I have an answer.
35. When I flunk a test . . . I never have.
36. Schools should not be so fussy about . . . tardiness.
37. My greatest trouble in school is . . . getting along with others.
38. When the teacher bawls me out . . . I wish I were dead.
39. When I daydream in school it is usually about . . . a book I want to write.
40. To get along well in class . . . you should not answer all the questions.
41. Schools should . . . pay more attention to students' emotional welfare.

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Wallace H. Maw -- University of Delaware

The Planning Paper

1. Each student should plan to teach someone or some group something new.

2. Whatever is taught should be simple enough that its learning should not require more than a few sessions.

3. It also should be complex enough that a large number of variables influencing learning may be considered.

4. During the first 10 weeks of the course, the student should make a list of all variables that should be considered in teaching; e.g., readiness, interest, aptitude, etc.

5. For each variable, the student should list ways of using the information known about the variable in teaching what is planned to be taught. Where materials are needed they should be obtained or developed, or adequate substitutes should be found.

6. During the discussion session of the course, each student will be given several opportunities to:
   a. report progress made to date.
   b. state plans for future.
   c. ask for suggestions on how to improve planning paper.
   d. ask for assistance in finding materials.

7. During the first month, the student should decide on what is going to be taught and probably to whom it is going to be taught.

8. A definite schedule will be developed showing when particular students are to report and the topics they will be discussing. Other members of the class will thus be prepared for the discussion.

9. Beginning with the 11th week, students should actually teach according to their plans.

10. The discussion periods will be used for students to report their experiences. These reports should include evaluation of the work and suggestions regarding what could be done to improve the teaching if it were to be done again.

The Research Paper

The student should select a small problem in learning. Data should be collected to solve this problem. The paper should include:

1. Statement of the Problem
2. The Limits of the Problem, including a description of the sample used.

3. Procedures Used to Gather the Data
4. A Review of Any Literature Helpful in Obtaining an Answer to the Problem
5. An Analysis of the Data
6. Conclusions as Supported by the Data

There are two procedures that will help a student with the Research Paper. Acquaintance with the library tools and the reading of articles from journals as the following:

Journal of Educational Psychology, Journal of Educational Research, and Journal of Experimental Education.

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Bryant Feather -- Chicago Teachers College

Note: Dr. Feather teaches educational psychology by television. The following projects are samples of those given his "teleclass" students.

TITLE: COMPARATIVE STUDY OF GROWTH AND DEVELOPMENT

PURPOSE: To afford the student experience in the direct study of two individuals of his own choice.

METHOD: Choose two individuals of the same sex and age (within 3 months). After obtaining permission from their parents, interview and observe the children. Preferably, choose children between 6 and 16.

1. Report the facts concerning the child's general body build, muscular and bone structure, and state of development.

2. Determine the child's developmental, health, and medical history and analyze the effects of these factors.

3. Evaluate the influence of the child's environment on this growth and development.

4. Determine significant early infant experiences and what lasting effects they may have had on the child.

5. Study the child's fears and their effects on the child.

TITLE: AN INTERVIEW WITH AN ADOLESCENT

PURPOSE: To get to know an adolescent, that is, to learn something of his body growth, mental development, physical and psychogenic needs, interests, worries, and problems; and how teachers can help him.

METHOD: Get acquainted with a child who is well into adolescence. After obtaining permission from the parent, make your observations.

1. Study the adolescent's physical growth, developmental history, and current state.

2. Determine the child's degree of social and emotional development.

3. Discuss with the adolescent:
    a. The "real" or serious problems facing typical adolescents today of the socio-economic group from which he comes.

    b. Ways in which teachers can help him and other adolescents in similar situations make better adjustments.

    c. Ways in which he and others can best get along with their parents during the adolescent revolt, when adolescents are trying to find themselves and establish adult-type independence.

TITLE: TEACHING A CHILD HOW TO DO SOMETHING AND HOW TO MEMORIZE SOMETHING

PURPOSE: To teach a child how to do something and commit something to memory.

INSTRUCTIONS: Select a willing child, obtain permission from the parent, and complete the two teaching jobs.

1. Teach a child how to do something: to build something, to play at something, or to make something. Apply your knowledge of readiness, motivation, reinforcement, interest, attitude, transfer, and method.

2. Teach a child to memorize a poem, a speech, a formula, or some vocabulary. Use enough content to be able to observe the points noted in item 1, above.

I. Describe the problems used in teaching the skill or physical activity. Results and conclusions:

II. Describe the problems used in teaching the memorization of some material. Results and conclusions:

TITLE: OBSERVATION OF A CLASS IN SESSION

PURPOSE: To study the physical and psychological aspects of a class.

METHOD: Obtain necessary permissions from principal and teacher to visit a class in session. Spend at least one class hour observing physical features and classroom activities.

Note especially:

1. Physical aspects of room such as size, color, ventilation, light, sound, equipment, etc.

2. Relationship:

   a. between teacher and certain students.
   b. among students themselves.

3. General climate and tone of the situation.

4. Working out of Educational Psychology principles you have studied.

TITLE: STUDYING A DISCIPLINE PROBLEM

PURPOSE: To study an actual situation in order to determine the causes, dynamics, and resolution of a specific discipline problem.

METHOD: Interview a teacher, a child, and other involved individuals, if possible. Obtain all necessary permissions.

Study the general and specific causes of the problem. Show how it was handled, with the immediate and long-range results. Evaluate the action taken. Tell how you would have handled the situation. Discuss whether it could have been prevented in the first place.

I. Nature of problem:

II. Causes:

III. Course of action:

IV. Results:

V. Comments and conclusions:

TITLE: INTERVIEW WITH A TEACHER

PURPOSE: To discover what psychological principles teachers actually apply to the maintenance of their own mental health.

METHOD: Interview a teacher.

Discuss:

1. The general psychological principles most often used and found most helpful.

2. The teacher's techniques for maintaining a sound, healthy personality, and why she thinks this is important.

I. Three important psychological principles the teacher regularly uses in teaching:
   1.
   2.
   3.

II. Psychological principles the teacher uses to maintain sound mental health and to meet inevitable frustrations:
   1.
   2.
   3.

III. Your observations and conclusions:

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Herbert Klausmeier -- University of Wisconsin

Assignment for a Research Paper

1. Problem. Identify and state the problem of highest importance to you related to the content of the course.

2. Expert Opinion. Secure from Books and Journals the judgments of experts related to the problem. Footnotes may be used to indicate the various sources used.

3. Research Evidence. Abstract from journals and books of readings reports of research in which information was gathered and analayzed and conclusions were stated related to the problem.

4. Conclusions. Set down the main conclusions from your study of expert opinion and research in not more than two pages.

5. Implications. State the implications of the conclusions to you personally, to you as an educational worker, or to education more generally.

Use the outline above and include the numbers and headings in your paper unless you can devise and justify a better outline. You will need to identify a problem about which some research has been completed. There are many such problems. Appropriate topics are now listed:

Punishment and learning
Reinforcement and learning
Contiguity and learning
Retention
Retention of meaningful material
Distributed and massed practice
Transfer of learning
Rigidity in problem solving
Level of Aspiration
Motivation
The learning of ethnocentrism and prejudice
Acceleration as a means of improving learning and adjustment of gifted students
Special classes as a means of improving learning and adjustment of slow learners
The effects of failure on learning efficiency

The achievement motive
Effect of teacher behavior on pupil learning
A comparison of the effectiveness of individuals and groups in problem solving
Anxiety and learning
Classroom interaction and learning
Teacher leadership and learning
Competition, cooperation, and learning
The nature of divergent thinking
The learning of attitudes
The modification of attitudes
The learning of motor skills
The relationship of social class and learning
Programed instruction and efficient learning
The learning of concepts
The learning of factual information
The learning of problem-solving skills
Creativity
The learning of values
Interest and efficiency of learning
The structure of knowledge
The inquiry method of learning

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Paul J. Burke -- The City College of New York

Synthesis Project on the Principles of Learning

1. This project is designed to give you an opportunity to demonstrate your mastery of the principles of learning and your ability to apply them to a topic in your field of specialization.

2. Step one is the choice of topic. Those in secondary education will, of course, wish to use their own specialization. Those in elementary education may choose any of the major areas of study, such as language arts, social studies, mathematics, or science, or may combine these and others to form unified topics. The topic chosen should be one which would normally require approximately two weeks of class time (10 periods), although considerable variation is permissible in this. You must also decide at what level the work is to be presented, especially in the case of the elementary school. Thus, certain science topics may be covered in third grade, in ninth grade general science, or in a specialized science course in senior high school.

3. Step two is the researching of your topic. Consult the syllabi or courses of study of New York City and New York State, and possibly some from other states and cities as well. Additional ideas and interesting approaches may be obtained from books on the methodology of the field.

4. Plan the subdivisions of your topic--the areas to be covered. Outline the specific ways in which class time would be spent. Include the type of homework assignment you would give, if any.

5. For each procedure or approach you use in class, decide what principles of learning are involved.

6. Decide on the evaluation method to be employed--oral questioning, test, etc.

7. Prepare the bibliography. Cite in full (using accepted bibliographic style) the syllabi, methods books, catalogs, etc., which you have used.

8. Write your first draft. Revise it. Type final copy. Proofread that copy and make necessary corrections. Keep a carbon of your report.

9. Do not use fancy covers and folders. Put in all available time on the essentials of the project.
   If typing, use double-space, on white paper this size.
   If typing is not feasible, write legibly on loose-leaf paper approximately this size, one side only, leaving margins on each side.

10. Use a two-column format, with the class procedure or homework assignment on the left, the statement of the principle of learning on the right. Unless the principle is obvious, do not merely toss in terminology such as "law of effect" or "associative shifting."

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Paul J. Burke -- The City College of New York

Problem Solving and Transfer of Training

This assignment consists of two parts. Part I requires the reading of a minimum of 50 pages selected from the books listed below, or 30 pages selected from pertinent periodical articles. In the latter case, no article used should be less than five pages in length. See appropriate subject headings in the Education Index (Reasoning, Problem Solving, Creative Thinking, Transfer).

Summarize concisely (not over one page) the main points presented in the readings.

G. Katona. ORGANIZING AND MEMORIZING. 1940. Chaps. 2-5.
Alex Osborne. APPLIED IMAGINATION. 1957
D. H. Russell. CHILDREN'S THINKING. 1956. Chaps. 9, 10, 12, 13.
Robert Thouless. HOW TO THINK STRAIGHT.
Max Wertheimer. PRODUCTIVE THINKING. 1st ed., 1945 or 2nd ed., 1959.
National Society for the Study of Education. 41st Yearbook. Dewey, on Problem Solving.

Part II of the assignment consists of outlining some specific procedures you would use or assignment you would give, to cause your students to use problem-solving techniques in your field of specialization; or procedures you would use to insure as wide a transfer of training as possible. This should be directed to specific topics in your subject area, not to generalizations.

While it is acknowledged that some subject areas lend themselves much more readily to problem solving than others, there is no field in which there are no problems to be solved by the students. The more novel or ingenious you are in inducing problem-solving or transfer, the better.

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Edward A. Townsend -- The City College, New York

Burke and I managed our first break-through in the learning course by introducing a self-study unit on the elements of statistics (through the topic of correlation, but in highly simplified form) - Townsend and Burke - Statistics for the Classroom Teacher (Macmillan 1963). This takes our students about 15 hours at home and class time is limited to two hours devoted to the elements of measurement and one hour to a discussion of the relationships of statistics and measurement. Since the learning course as a whole consists of only 45 recitation hours, we feel that we are managing to include, at minimum time cost, the basic essential awareness of two large areas of educational psychology.

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Richard E. Ripple -- Cornell University
Herbert Klausmeier -- University of Wisconsin

Form for Abstracting Reports of Scientific Investigations

1. Identify the article in correct bibliographical form. It is probably wise to use the complete name of the author, full title of article and name of publication. If you use abstracted data in your writing, it is important to have complete information.

2. A very brief statement of the author's purpose in conducting the study; not your purpose in making the abstract.

3. A brief statement of the kind of study and the procedure followed. This may include setting for the study, number and description of subjects, length of study, method of gathering and analyzing data.

4. A report of the findings in the study. Be specific in reporting the findings and conclusions; you may wish to quote directly or to present in table form. This is generally the longest portion of the abstract. Numbering points included helps to make it more concise.

5. The significance of this study to your personal growth; preferably how you may apply findings; or general significance of the study.

6. Your evaluation of the study. This is the most difficult if you have had little background in research design and statistics. Your instructor recognizes this.

General comments concerning abstracts. In making an abstract, certain recommendations are in order. First, make the abstract in terms of your uses for it. Good clear abstracts are frequently used for the following purposes: (1) inclusion in term papers, (2) inclusion in theses, (3) as a basis for group discussions, (4) as a basis for addresses with groups such as PTA, professional groups of teachers, and community groups, (5) as a cumulative group of materials to be used in teaching, (6) as a basis for analyzing problems which arise in your own work, (7) as a framework for publications.

With these purposes in mind, it is apparent that the abstract must be complete enough to be usable. Ordinarily, most scientific investigations can be abstracted on two double-spaced typewritten pages. Occasionally, it may be necessary to use more than two pages. In abstracting, selecting for abstracts, and evaluating experiments, it is important that you do it from the standpoint of making the work most valuable to yourself.

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Richard E. Ripple -- Cornell University

Suggestions for Increasing the Thought Content of Objective Test Items

1. A thought item is generally one in which the stem presents a problem, more or less novel, in relationship to previous learning, which must be critically appraised. The responses and stem should be so constructed that the student must recall and relate information, which we can reasonably assume he should have in his possession, in order to arrive at the correct answer.
2. The stem should state a problem rather than be a word or phrase followed by what are in effect several true-false statements. When the latter is the case, the item is likely to be loosely knit and to test for only factual information.
3. The thought content of an item can be increased if the testing situation is set up in such a way that the responses become categories rather than specific statements. Items with lengthy, positively-stated responses are not necessarily throught-provoking. Usually, the more information the student is required to supply for himself, the better.
4. An item is more likely to measure for understanding if the correct answer is correct only in relationship to the other responses.
5. The responses should be selected so that only one fulfills all of the critical elements of the stem. Good incorrect responses are often those which have general relevancy, are too broad or too narrow for the stem, or embody a common misconception.

6. A thought item is not necessarily one in which the correct answer is significant in itself. Conversely, an item dealing with a significant concept may be highly factual. We are concerned with what the student has to do in order to arrive at the correct answer.

7. Constrasts, comparisons and analogies frequently provide good opportunities for requiring the student to use his learning in new contexts.

8. The thought content of an item sometimes can be increased if the responses are left "open-ended" through the use of "none of the above," or "more than one of the above."

9. Quotations, when carefully selected, are capable of testing the student's ability to analyze and interpret.

10. The quotation should be carefully inspected, however, to be sure that only a small, and perhaps unimportant part of it, is not the functioning portion. Being able to select a correct answer does not necessarily indicate that a student knows all that it is intended he should know to answer.

11. A series of items based on a reading passage or graph may test the ability of students to think critically.

The following points should be noted in making a test exercise based on a reference such as a passage, a graph, a table, etc.

a. Try to make items require the student to use the passage as well as outside information. These are more desirable than items which can be answered from the passage alone--we wish to test for more than just reading comprehension.

b. The number of items should be geared to the length of the passage.

c. Try to make items which test for different concepts. It often happens that the same idea is tested for in several items in this type of exercise.

12. In making thought items, care should be taken that "face" validity is not confused with actual validity. A student may be able to select the correct response on some grounds other than a reasoned understanding of the situation. Or he may be able to select the correct response on a basis of partial knowledge.

13. Items which measure for understanding should require the student to think with relevant information. Sometimes an item which appears to fulfill these requirements is in reality measuring only intelligence or general knowledge.

Three questions to always bear in mind in the above connection are the following:

a. **"Is there any basis, other than that intended, on which the pupil can respond correctly to the item?"**

b. **"What is the minimum amount of information, skill, or understanding that the pupil must possess in order to respond correctly? How does this minimum compare with the intended purpose of the item?"**

c. **"Is there any element in this item that the student may disregard entirely and yet respond correctly? Are there any elements that need not necessarily function in determining the student's response?"**

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Herbert J. Klausmeier -- University of Wisconsin

Development of Learning Material

Outcomes of learning include facts, concepts, skills, attitudes, and personality traits. Assume that there are concepts that you wish students of some age, grade, or developmental level to acquire initially or to develop more fully. Prepare instructional material which the pupils could use independently to acquire or develop the concept. The instructional material might take the form of a regular book, textbook, programed instruction of the Skinner type, programed instruction of the Crowder type, textbook type material and accompanying multiple-choice questions, or some other type of material. Not more than ten pages of material are needed.

After developing the material, try it out with one or more students to estimate how highly the students are motivated to learn from it, how well they learn initially, how well they remember, and how well they can use the concepts in other situations.

Those preparing for student teaching may develop the material related to the subject and grade level prior to student teaching and try it out during student teaching. Others may develop material related to this course and try it out with students in this course. Anyone may, however, utilize whatever concepts he chooses and try out the material with whomever he chooses. The material should be prepared by Friday of the fifth week. The final report should include the material, the description of the try-out, the estimate of motivation, retention, and transfer. The final paper is due on Friday of the fifteenth week. This paper will count one-fourth of the semester grade.

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Herbert J. Klausmeier -- University of Wisconsin

Creative Thoughts

Ideas are important, but their value is often lost unless people record them, actually write them down. There is no way of predicting when an important idea will occur--it may be at home, in school, at church, when discussing, eating, listening, reading, studying--any time one is awake.

Keep a note pad or some writing material readily available to record your important ideas about learning-teaching processes, about anything connected with the content of this course. After this rough jotting down and record keeping for a week, incorporate one main idea or several of them in about a double-spaced page. These ideas may be descriptive in declarative sentences or may be stated as problems. You may express your ideas in any form you wish, however, the presentation must be correct in English usage and easily legible. For each week, then, including the seven-week interval, jot down any unique and novel ideas or thought that you experience, and incorporate the most important one or two in about a double-spaced page each week.

This paper will not be evaluated on the correctness of the ideas but on the quality and originality of the ideas. It will count one-fourth of your total grade for the semester and is due on Friday of the fifteenth week. We may call for the paper on any Friday simply to check how you are progressing.

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Sydney C. Davis -- Adelphi University

Professional Action Project (an action-research assignment)

You are being asked to prepare a workable plan to improve your teaching effectiveness in one particular area of interest to you. The outline you are asked to follow is in accord with the problem-solving approach employed by many scientists in solving their problems. Thus, you too will be expected to survey and analyze your problem before you try to solve it. The instructor hopes that this assignment will help you to become a better teacher while simultaneously increasing your understanding of the ways of science. Many students have carried out this type of project. Most seem to have learned from doing so. Hence it is hoped you too will benefit.

Nature of Reports

1. Personal. Each report should be about YOU--what you, not others--intend to do.
2. Useful. Each report should help you to become a better teacher.
3. Original. Each report should represent YOUR thinking. Digest other people's ideas so thoroughly that they truly become your own.
4. Comprehensive. Each report should give sufficient detail--as to measures, illustrations, reasons, and the like.
5. Concise. Each report should be short and to the point--without sacrifice of quality or comprehensiveness.

Choosing Your Problem

Select a teaching problem that meets the following four criteria:

1. It is related to this course.
2. It truly interests you. You will enjoy this assignment more if you are genuinely interested in the problem you select.
3. It is educationally significant.
4. Its solution will increase your professional competence. Professional courses should promote professional competence. Unless solving your problem truly contributes to your professional effectiveness, you waste your time, your money, and your effort.

Preparation of Your Reports

1. Re-writing reports
   You will be asked to re-write any report which fails to follow the instructions. You would be wise, therefore, to study this mimeographed material before beginning to write and to check your completed reports before submitting them.

2. Organization of reports
   Follow the outline, section by section.
   Discuss each section and sub-section separately.
   Use the exact headings listed for each section and sub-section.
   Number and letter sections and sub-sections correctly.

3. Justifications
   Go into sufficient detail when giving your reasons.
   Give brief illustrations when they will clarify.

4. Quotations
   It is NOT necessary to quote from the writings of "the experts" or to include footnotes or a bibliography. However, if you feel compelled to quote or closely paraphrase, give credit in footnotes.

A Different Focus for Each Report

There is no overlapping among reports. Your Survey Report, for instance, sizes up your situation. It has an exploratory focus--to help you learn more about your problem. When written properly, it offers NO suggestions as to how you might improve your teaching situation. Later reports, in contrast with the diagnostic focus of the Survey Report, give much attention to the curative function--to improving your ways of stimulating desirable learning and development of the youngsters. A comparison of reports will quickly reveal that different kinds of information are being sought in each.

2

Survey Report

This report is to be a six to twelve-page paper in which you do some of the necessary spade work for your next report. Be sure to read the previous sections of this mimeographed material and the instructions for your next paper before beginning to write. If you find the following outline unsuited for the solution of your problem, see the instructor about making appropriate revisions.

Section #1: The Nature of My Problem

State your problem in terms of THE KINDS OF LEARNING AND DEVELOPMENT you wish to foster. Be very specific.

Also indicate the particular grade and/or subject area to which your professional action project will refer.

Section 1 of your report should be one-third of a page or less.

Two Options

Choose one of the following two approaches in selecting your problem:

a. The Sharpshooter Approach

Aim to promote (only) one or two kinds of learning or development. Some examples:

1. To promote creative powers or problem-solving skills
2. To promote ability to speak Spanish
3. To promote capacity for responsible self-direction
4. To promote a love for poetry
5. To promote democratic understandings and ideals
6. To promote scientific attitudes and skills

If you choose the Sharpshooter Approach, in your later paper(s) you will be expected to promote one particular kind of learning or development by means of many different kinds of educational measures.

b. The Shotgun Approach

Aim to promote as many kinds of learning and development as possible. If you choose this approach, in your later paper(s) you will be expected to promote the all-round learning and development of the youngsters by means of one educational measure. (You are asked to limit yourself to one "golf stick" in order to keep your project reports from being too long.)

Some examples of suitable educational measures would be:

1. Parent-teacher conferences and home visits
2. Grouping practices within the classroom
3. The lunch period
4. The homeroom or weekly club period
5. Community visits and visitors

Section #2: The Educational Setting of My Problem

To the extent that you have the information, include such matters as:

a. Name and locality of your school
b. Grade and/or subject area you are or will be teaching
c. Number of youngsters you are or will be teaching
d. Likely age distribution of the youngsters
e. Unusual characteristics, if any, of the youngsters
f. Your major educational goals as a teacher; NOT those for this project. Be very brief.
g. Other maters you wish to mention

If you have no knowledge about your next teaching situation, describe what you may reasonably hope it will be like. If you wish, you may use an elementary or secondary school you attended.

Section 2 should be two pages (sides) or less.

Section #3: My Reasons for Choosing This Particular Project

Discuss each of the following headings separately.

- a. Why This Problem Interests Me
- b. Why I Think This Problem Is Significant
- c. How I Expect to Grow Professionally from Working on This Problem

Section #4: The Dimensions of My Problem

Here you describe how the problem appears to you today.

a. Extent of The Problem

Indicate what proportion of the youngsters you aim to help while working on your project.

All? Half? A few? One?

Support your estimate with evidence that these youngsters need your help

or

Indicate that you are guessing because you lack the information.

b. Seriousness of The Problem

Indicate the degree of deficiency of the youngsters in the areas of growth you wish to foster in your project. Are the youngsters:

Severely deficient?
Somewhat deficient?
Mildly deficient?
Or, on the other hand, are they average or even superior when compared with others?

Support your estimate with evidence that these youngsters are that deficient

or

Indicate that you are guessing because you lack information.

Section #5: The Causes of My Problem

To fully understand a situation, you must know the causes making it what it is. That is why you now are being asked to survey the causes of your project situation.

What to Do

a. Identify causal factors

Consider all conditions contributing to your situation. Concentrate, however, on those causal factors which hinder the youngsters' growth in areas you hope to foster in your project. You will have to overcome these hindering conditions to make maximum improvement in your situation.

List as many influences (causes) as you can. Be extremely comprehensive!

b. Justify your statements

Give your reasons for believing in the existence of each causal factor you identify.

Discuss "a" and "b" simultaneously.

Limit Section #5 to three pages or less.

Section #6: Actions I Shall Take to Learn More About My Problem

Discuss each of the following sub-sections separately. Letter and title each heading correctly.

a. Areas I Need to Study and Think About During the Next Few Weeks

You will quickly become aware of many areas you need to study and think about if you ask yourself how much you now know about each of the sections you still have to write in this and later reports.

b. People With Whom I shall Confer During the Present Term

When possible, identify each person by name and position.

c. Books and Pamphlets I Shall Examine During the Present Term

List the 20 to 30 most helpful references you intend to examine during this term. Be sure that each will help you write one or more sections of this or a later report.

Give the exact title and author of each reference.

Use the course annotated bibliography, the college library catalog, and other sources of information to help you prepare your list.

Introductory Remarks to Sub-Sections "d" and "e"

Sub-sections "d" and "e" are the most important--and most difficult!--parts of your Survey Report. Be sure, therefore, to give them your deepest and most thorough thinking. Your description of each measure should:

Tell precisely what you will do to learn more about your problem

"precisely"	Requires that you be specific, that you give exact and sufficient details.
"you"	Requires that you write about yourself, not about teachers in general.
"do"	Requires that you discuss measures you plan to take after you have met the youngsters. These measures should refer to specific, down-to-earth, tangible actions to be taken by you. Do not center this part of your discussion about the dimensions and causes of your problem or about educational principles or objectives. Talk, instead, in terms of your actions.
"learn more about"	Requires that you propose measures that will help you diagnose, not cure!, your situation. For further clarification on this point, see A Different Focus for Each Report (p. 2).
"your problem" ...	Requires that you choose measures which are likely to throw light upon your project problem, not upon teaching problems in general.

List many measures in each sub-section.

Do much reading and reflecting before you begin to write. Your report will be returned to be re-done if it shows surface thinking or lack of adequate prior reading of relevant books.

Do not repeat measures you listed, or ought to have listed, in Sub-sections "b" or "c."

Remember:

If you are teaching during the present time, you will be expected to carry out your measures in your teaching situation during the next few weeks and then report your finds in your Progress Report.

d. Measures I Shall Take to Learn More About the Dimensions of My Problem After I Have Met the Youngsters

In this sub-section you describe specific measures you will take to collect additional information about the extent and seriousness of your problem once you are in the classroom.

Follow the instructions in the Introductory Remarks to Sub-sections "d" and "e" above.

e. Measures I Shall Take to Learn More About the Causes of My Problem After I have Met the Youngsters

In this sub-section you describe specific measures you will take to collect additional information about the causes of your problem once you are in the classroom. Refer to Some Causes Contributing to Teaching Situations, pp. 11-13, for suggestions as to areas worth investigating.

Follow the instructions in the Introductory Remarks to Sub-sections "d" and "e" above.

Classroom Visits: Assignment Sheet

Reason for assignment

To help you gain firsthand knowledge about the factors influencing learning and development.

Places to Visit

Public, parochial and private schools, Sunday Schools, scout groups and Y educational activities; PTA and Board of Education meetings (ED 25 only): other educational institutions and agencies with permission of instructor. Pick normal situations; avoid making visits during American Education Week, Parents' Day, and the like. Make school visits singly or in groups of two or three: larger groups might inconvenience schools. Do not limit classroom visits to the subject or grade you plan to teach; you will be asked to concentrate in later courses.

Scheduling Visits

The Department of Education will make arrangements for all visits to public schools in Nassau County. Other students are to make their own arrangements in private and parochial schools or in public schools outside of Nassau County. These latter students will be given a latter of introduction by the instructor.

During Visits

Use your senses. When observing:
Look for details. Listen intently. Note the unusual. Observe more closely than you have ever observed before.
Focus on cause-and-effect relationships. Relate what you see to causes and to consequences. One trait of superior teachers is their ability to detect and regulate many of the conditions (causes) affecting learning and development.
Look through the eyes of others. Try to understand the meaning of the situation to those participating and the needs which they are seeking to satisfy by their behavior.

Your Written Report

Note-taking may disturb the group you are observing. Hence jot down reactions after you leave the premises. List the following information at the top of each report:

- Name of school, group or agency.
- Address of school, group or agency.
- Name of principal or person in charge.
- Classrooms visited (if visiting a school).
- Date of observation.

Your report should discuss 3 to 5 conditions, facts, circumstances, or occurrences noted during your observation. (The next page offers some suggestions.) Choose those matters which seem most educationally significant.

Organize your report as follows:

1. Item #1
   (a) The Circumstance or Occurrence: 2 to 5 words.
   (b) Description: Here you describe the conditions, fact, circumstance, or occurrence; include grade and/or subject. Be extremely brief.
   (c) Evaluation: Here you (1) judge the educational benefit or harm likely to result to the youngsters in that situation and (2) give your reasons. Go into sufficient detail to reveal your knowledge and judgment.

2. Item #2
   (a) The Circumstance or Occurrence

Recommended Areas to Observe During All Visits

1. Satisfaction: Is the situation satisfying or dis-satisfying for those participating?
2. Relationships: What kinds of relationships exist in the situation?
   a. Democratic or authoritarian?
   b. Friendly or unfriendly?
   c. Open or cliquish?
   d. Cooperative or uncooperative?

3. Major Educational Aims: What seem to be the major educational goals of those in charge of the classroom, school, school board meeting, PTA, agency, or other group? To what degree do they seem interested in promoting:
   - a. (Emotional) adjustive powers?
   - b. Appreciation and attitudes?
   - c. Creative powers?
   - d. Democratic ideals?
   - e. Desirable habits?
   - f. Moral qualities?
   - g. Skills?
   - h. Knowledge?
4. Educational Program: What is its nature?

Additional Areas Recommended for Observation During Visits to Classrooms

1. Learners
   - a. Similarities: In what ways are the learners alike?
   - b. Differences: How do the learners differ? Consider such variables as: Mental, social, physical, motor, emotional, aesthetic, attitudes, interests, independence, initiative, and the like.
2. Individual Differences: How are those in charge providing for individual differences among the learners?
   - a. In their interests?
   - b. In their abilities?
   - c. In their deficiencies?
3. Opportunities for Choice: What sorts of choices are offered youngsters?
4. Cooperative Planning and Implementation: What cooperative planning and implementing of plans between learners and teachers do you observe?
5. Grouping: Are youngsters being grouped? If so, how?
   - a. By classrooms?
   - b. Within each classroom?
   - c. On what basis?
6. Discipline: What seem to be the aims of disciplinary procedures?
   - a. To enforce the will of the teacher?
   - b. To develop the youngsters' competence for intelligent self-direction?
   - c. To ....?
7. Instructional Materials: How educationally effective are they being used?
8. Measurement and Evaluation: Which kinds (See Point #3) of learning and development are being measured and evaluated? To what extent, if any, do the youngsters share in these activities?
9. Records: Are records about the youngsters being used to promote their learning and development? If so, how is this information being used?

METHODS OF INSTRUCTION AND CLASSROOM OPERATION

Betty Harrison -- Brigham Young University

The Use of Panels and Field Trips

In my course I always have a panel of patients from the Utah State Hospital come during the unit on personality. We also have various panels--a panel of elementary school children, a panel of secondary school children, a panel of students requiring special services (orthopedic, blind, gifted), a panel of juvenile delinquents currently under the treatment of the juvenile court, etc. We also have representatives from the Pinehills Juvenile Delinquency Treatment Center and from the Utah County Child Guidance Clinic. We also have group visits to the various community agencies--The Utah Valley Care and Training Center for trainable mentally retarded children, the youth home, the class for orthopedically handicapped at the Franklin Elementary School, the class for Educable mentally retarded children at Timpanogos Elementary School, our own: Continuous Progress School, remedial reading classes, etc. We have also experimented with a community exploration day in which arrangements were made with the various community agencies and school workers to have students visit various programs and facilities or observe specialists (school psychologists, counselors, supervisors) at work. As you can see, in addition to providing experiences which we hope will be useful to the regular classroom teacher, we also try to use this course as a recruitment device to encourage students to go on in specialized fields.

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Willard H. Nelson -- The Florida State University

Planning Groups

I sometimes have one small group from a class serve as a steering committee to plan work with and for the class. They serve to improve the communication between instructor and class members. Primarily, however, it is an opportunity for them to do some group planning and to experiment with the execution of the plans.

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David Gliessman -- University of Missouri at Kansas City

The U.M.K.C. Film Project

Several of us on the staff at the University of Missouri at Kansas City have developed an instructional medium and technique that combines the use of films and of small group discussion methods. We feel that it has unusual promise as an instructional aid, especially in the teaching of large classes.

Essentially, this technique consists of a specifically designed film and a discussion guide. However, the two are integrated in a rather unusual way. The films are to be problem-centered and open-ended; that is, a problem is posed in the films and no conclusion or solution is offered. After portraying the development of a problem situation, the film ends with the problem unresolved. The discussion guide then directs the viewer's attention to the need for some kind of decision or action. Several topics for discussion are suggested; these draw on concepts from educational psychology, and are designed to lead into areas that may suggest possible solutions to the problem posed in the film. The guide also suggests and outlines "role playing" techniques which can be used to "try out" some of the solutions or actions suggested during the discussion.

The film and guide together are designed to be "self-instructional" (in the sense that they may be used by groups of students without the instructor being present), though they do not have to be used in this way. If he wished, the instructor could show the film, provide each student with a discussion guide, divide the students into small groups and let them explore together some solutions to the problem posed in the film. Our experience with our own students indicates that this works very well.

Perhaps a brief description of our pilot film and our use of it will clarify the nature of this technique. "BACKFIRE" our first film concerns the problem of the use of praise or reward in teaching. In it, a young teacher of a seventh grade class gradually and inadvertently creates a problem by directing her praise and recognition toward a few good students in her classroom. She singles out these few; she "calls on them" almost exclusively, displays their papers, and has them serve as leaders in and out of the classroom. By the end of the seven or eight minutes of film time (a little longer than we hope most of the films will be) condensing several months of actual classroom time, she has effectively isolated these few students from the remainder of the class. Worse, most of the favored few have pretty well rejected her; this rejection is reflected in their deteriorating classroom performance. The film ends, leaving the film teacher and the viewer in something of a dilemma: What action should the teacher take? Should she take any? What about the efficiency of praise or reward? How can a concept that is recommended by educational psychologists lead to such disastrous results? Did the film teacher really understand the meaning of reward (in the full psychological sense)? The discussion guide begins with questions like these.

We have used this first film in many classes on both the undergraduate and graduate level. Our experience in using it has led us to feel that the development of further films, and of evaluation techniques for them, is of definite value. We have already made two observations about the instructional value of this technique. First, the film definitely invites discussion. Apparently, the open-ended, problematical nature of the film results in a "lack of closure." Second, the film seems to be seen as "realistic." Students seem to recognize the possibility that a problem something like the one portrayed might often really occur.

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Claude Mathis -- Northwestern University

Team Teaching

Bill Hunt and I team teach the course, and we try to present the usual content found in a beginning course in general and educational psychology. We do this by attempting to present basic concepts in psychology with application to the field of education. We try to parallel the general and educational content throughout the two quarters rather than presenting one the first quarter and the other the second quarter. We use Hilgard's Introduction to Psychology, Skinner's Walden Two, the symposium held here in 1957, Can the Laws of Learning Be Applied to the Classroom, plus a selection of forty readings from Scientific American. The students participate in psychology experiments, and this year Bill and I have a Title VII grant on programed learning which the class is involved in as subjects. This summer the class will be taught at an adjacent public school in Evanston where our summer elementary demonstration school is to be housed. We plan to involve the class in as much work with the children in the school as can be arranged.

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Herbert J. Klausmeier -- University of Wisconsin

Use of Multimedia in Teaching Educational Psychology

Learning and Human Abilities, a course in educational psychology with the emphasis on learning, follows one in child or adolescent development. It is offered in the Multimedia-Instructional Laboratory (MIL) at the University of Wisconsin--Madison. The MIL is an integrated audio and visual system designed to improve the quality of large-group instruction.

Incorporated in the system is rear-screen projection. The projection equipment includes two 2" x 2" slide and filmstrip projectors, a 3¼" x 4" slide projector, a 16 mm motion picture sound projector, an opaque projector, and a TV projector. A tape recorder and a three-speed phonograph are coupled with a stereo sound system and the master control panel

The screen is divided into three parts. On this tri-part screen three visuals may be presented simultaneously. Usually the main point of the discussion is given in print and held on a smaller upper right screen, the subpoint on a smaller left screen, and the graph, table, picture, or other illustration on the larger main screen.

The instructor has complete control of both the audio and visual equipment. Each piece of equipment may be operated from a remote control panel at the lectern through an electronic switching device and a sequence selector. As the instructor speaks, he operates a switch or switches to bring in the appropriate visuals. If he wishes, his lecture may be recorded and the visuals cued on the same tape simultaneously. In this manner, the same presentation may be made at later times in the absence of the instructor.

The course has been offered seven times in the MIL. From informal evaluation and controlled experiments, a number of conclusions have been reached:

1. Students initially achieve slightly higher through use of the MIL than through lecture; retention after seven weeks is considerably better when the visualizations are used.

2. Students prefer the instructor to be present, rather than not present, even though the instructor merely sits through the first part of an automated presentation and subsequently leads discussion for the latter 15 to 20 minutes of a class period.

3. Students prefer to have a formal presentation not longer than 30 minutes of a 50-minute period, leaving the last 20 minutes for discussion and questioning.

4. Kinescopes of unrehearsed classroom situations on the large screen, presented with principles on the side screens, are useful in helping the students develop skill in analyzing teaching-learning situations in relation to whether a principle is implemented, violated, or not observable in the situation.

5. There is no difference in student performance on tests between the use of leaderless discussion groups for the last 15 minutes of the class period and programed self-evaluation items.

A principal problem connected with use of the MIL is whether to present material with which the students are unfamiliar or to clarify concepts and help them find new applications of concepts with which they have some familiarity through study prior to the presentation. If the latter approach is taken, a large amount of material can be presented visually and orally in a short time and relatively little note-taking is required of the students. If the former is done, the material must be presented more slowly to permit note-taking. This same problem exists in the usual lecture situation; it is magnified in MIL because the student cannot simultaneously view the screen and take notes.

A lesser problem is the amount of time required to prepare a 30-minute presentation. The production team, with the professor as the central figure, consists of a part-time artist, a photographer, a teaching assistant, a programmer, and a technician to operate the equipment. The professor and the teaching assistant spend at least 20 hours in preparing a presentation; the other personnel average about 120 hours. The same presentation may be automated and used during successive semesters and summer sessions.

The conduct of small group work outside the class period has not been met satisfactorily. Ideally, there should be a few rooms for small group work near the MIL. The professor might meet with each of several smaller groups for one hour per week, when most of the presentations are automated. While in the process of developing the presentations with one teaching assistant, the professor and assistant cannot meet with small groups weekly without using a large amount of time, much more than is usually given for the conduct of one class.

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Richard Y. Reed -- University of Miami

Teaching Demonstrations

Each student will demonstrate his own ability to use concepts and principles of educational psychology which he has learned (up to the time of his demonstration) by applying them to a teaching-learning situation which he will conduct in class (seven to ten minutes in length).

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George J. Mouly -- University of Miami

Honors Section Teaching

1. We are beginning an honors section oriented toward giving the student relative freedom in the pursuit of whatever knowledge in the area may be of interest to him. The guidelines for the course are in the process of preparation.

2. We generally assign a "major project" such as reporting on a series of visits to a local school, a youth center, or camp, etc. Dr. Paschal requires some participation in such groups as Boy Scouts, Boys clubs, and church groups, etc.

3. We attempt to bring in a guest authority where such a guest can be dove-tailed with the work of the course.

4. We generally require students to turn in reports of readings in the current literature and to construct test items covering the outside course material. The test items are discussed and analyzed and sometimes used in part (with improvement where needed) as evaluative material for the course. We sometimes use test items as the basis for class discussion.

5. Films and other audio-visual aids are used where appropriate. Closed TV circuit and also a programmed research center are in the works. Reports of individual and small group observation of public school classes are also presented and discussed in class.

6. Dr. Reed sometimes has a few students present a lesson to the class which he then uses as the basis for class discussion of the psychology of teaching.

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Don C. Charles -- Iowa State University

Honors Section Teaching

One thing we are doing is trying out some Honors approaches to these courses. (I happen to be the head of the university Honors Program.) Most quarters we pull out 20 of the best students (entrance tests, grade in 104 and over-all grade point) from 234 and offer them an Honors approach. This is handled like a graduate seminar with reading of original research, individual and small committee reports, oral and essay exams and the like. Whatever it does for the students, it probably does more for the instructor! It's stimulating and fun to do. We note two or three results: these students keep showing up in our higher level and graduate courses, application to classroom becomes secondary to research in most of their interests and discussion, and they tend not to be or cease to be teacher trainees even though they are in that sequence. Obviously, this requires some thought. We are also planning other combinations under an Honors aegis. (I should note that students do not have to be in the university Honors Program to get in an Honors section. I have tried for three years with no success to interest the Education people on campus in Honors work.) I am going to try the general-developmental combination in the spring, and another staff member wants to try the 334 learning and 434 measurement areas together.

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Virgil Murk -- Elgin Public Schools (Jr. College Course in Educational Psychology)

Selected Teaching Techniques (Group Techniques)

A typical class evening is as follows:

7:00 - 8:05	Team presentation on textbook chapter.
8:05 - 8:15	break
8:15 - 9:00	Speaker with class questions (demonstrations, models, charts, are used when possible).
9:00 - 9:30	Students respond by questions to instructor's printed "lectures" (or outlines) which were distributed earlier.
9:30 - 9:45	Planning time by student groups for future sessions

Guide for Group Techniques

Group techniques are a means to stimulate discussion and increase participation from everyone. The following schedule will show that a different method is possible each session. Your own resourceful innovations are encouraged.

Chapter 2. Team members prepare a written question to be given to about twelve class members. This class member responds. Other class members may respond next. Team members may then respond.

Chapter 3. Role Playing. Team members (or other designated persons) assume a role in various problem or teaching situations. Class members react on causes and remedies.

Chapter 4. List a few general principles on the chalkboard. Divide the class into about five equal groups. Ask each group to find ways to apply this principle.

Chapter 5. Field Trip. Some team members report on a visit to a classroom or agency specializing in serving children with physical differences.

Chapter 6. Stage a debate on some controversial topic in the chapter. Team members and/or class members may be initially involved. Entire class then participates.

Chapter 7. Projective Technique. Read a controversial paragraph or problem situation for class response.

Chapter 8. Interview people who work with different cultural groups. Report the findings to the entire class.

Chapter 9. Locate or devise some case studies for presentation as a discussion aid.

Chapter 10. Round Robin. Divide the class into four equal groups. One person in each group responds to a central question. Each person to the left either accepts, rejects, or modifies it. The last person summarizes the responses to the total class.

Chapter 11. Round Table. Unstructured discussion of the topc started by the team members. Class join as participants.

Chapter 12. Conduct a mock interview to present supplementary material.

Chapter 13. Locate or devise a short psychodrama, sociodrama, or playlet with teaching value. Discussion follows.

Chapter 14 & 15. Buzz Sessions. Divide the class into about four groups for the discussion of identical problems. Each group spokesman reports to the class.

Supplemental Techniques

1. Write some "thought" questions on the chalkboard. Class members will discuss each.

2. Use a panel or symposium on some aspect of the chapter.

3. Write four problem situations on the chalkboard. Divide the class into these groups. Each leader will summarize to the total class the group's response.

4. Write a list of words that may have various meanings. Ask individuals to give their definitions.
5. Ask selected members to share their experiences around specific learning or teaching situations.
6. Ask class groups to list the five most basic ideas in the chapter.
7. Ask class groups to identify common problems related to the ideas in the chapter.
8. Bring in special materials, current clippings, or devices which will create interest in selected aspects of the chapter.
9. Use graphs, charts, tape recorder, or other physical aids to demonstrate or enhance learning.
10. Report on books or periodical articles which relate to the general topic.
11. Conduct an opinion poll of the class and/or other groups. Tabulate the results for class discussion.
12. Have one person evaluate and/or summarize the points discussed during the session.

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Janet A. Kelley -- The City College, New York

Group Project Work

Students are divided into committees according to their choice of theory--Thorndike, Pavlov, Freud, Skinner, Guthrie, Hull, Tolman, Gestalt, Levin, Functionalism. A student chairman is selected by the student group. On a scheduled date: (1) They explain to the class their theory; (2) demonstrate it; (3) state and explain the concepts involved in it; (4) state its contribution and limitations; (5) make comparisons with the other theories; (6) apply the concepts to learning problems such as: motivation, practice, understanding, transfer, forgetting, retention, perception, habit-formation; higher mental processes. They also apply concepts to personality, instruction, and curriculum and the role of the teacher in the same. They may also use their field work experience for application. Class participation is brought in when the application of concept is made. Positions of students on concepts and debates sometimes ensue.

The second half of the semester is devoted to the preparation of a simple curriculum unit by each student in his major field. (A project assignment.)

He presents:

(1) an outline of the unit;
(2) defends each part of unit and instruction method with learning concepts;
(3) demonstrates (teaches) unit to class (using 1 and 2);
(4) questions raised by class.

The professor, throughout raises critical issues, corrects mistakes and misconceptions--becomes a member of the group in raising issues during class discussion, and lectures on areas of theories not concisely presented or understood.

The professor cites specific references helpful to each committee group, in addition to a regular bibliography and textbook.

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Edward A. Townsend -- City College, New York

Team Teaching

As space and scheduling permit, the two of us find team teaching to be very valuable. We do this sort of thing as consultants but, at The College, we do better with less effort if 2, 3, 4, or 5 classes are combined in a large hall once a week for an hour or two. The other sessions of the week are in separate sections, with about 30 students to a section.

To illustrate from a topic like measurement which we do in two hours, we work from an outline--the students have a copy of the outline.

Measurement: Purpose(s)
Validity
Reliability
Aptitude, Ability, Capacity, Talent

One of us will introduce the topic--its role and importance. Then while Burke is doing purpose(s), I listen and interrupt with points of emphasis. While I do validity he contributes in the same manner. The change of voice, style, is stimulating. Further, while your partner is speaking you can gather your thoughts. As a member of a two-man team, provided the changes are of short duration, one is both a participant and an observer. It is a refreshing teaching experience (it rarely tires one, rather it is exhilirating), and style, skill and technique can be learned and developed.

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DEMONSTRATIONS AND LABORATORY EXERCISES

David Gliessman -- University of Missouri, Kansas City

Role Playing (An Indifferent Class)

This is a role playing episode that is very easy to plan and often effective in arousing some strong emotions and animated discussion. It involves the problem of teaching subject matter to a "miniature class" composed of students whose attitudes range from interest in the subject, through indifference, to outright resistance. The episode has an almost primitive purpose: To expose students in educational psychology to the disturbing experience of facing a classroom where negative attitudes and lack of interest are apparent.

The role playing should be "multiple" (i.e., several different groups of students enacting the problem at the same time), with about five members in each group. One member should play the role of "teacher"; the remaining four should play the role of "high school students." I generally ask all of the students in the class, during the class session preceding the role playing period, to plan a very brief presentation of a subject that is of great interest to them (generally, in their major or teaching area). Examples of such a subject might be: Edgar Allen Poe, liberalism, new facts about heredity, mental illness and other subjects that interest college students. Thus, by the day of the role playing session, any student in each group might take the part of the "teacher." Each "high school student" in the group is given a card on which is written one word to describe his role in the class. These are:

Bored	Argumentative
Tired	Enthusiastic
Interested	Distracted

The "teacher," of course, does not see these cards.

The "teacher" should begin his presentation, the "students" facing him in a row. Usually, five minutes of role playing is sufficient to get the point across, and often to unnerve the "teacher." Then, another member can assume the role of "teacher," and the cards are redistributed. I might add that usually the "students" follow through and elaborate on their roles with a thoroughness that even unnerves me.

Follwing several role changes, the episode should be discussed among the members in each small group. I have never known discussion to lag; usually it is quite intense. It should, however, be guided toward a few general points, which can be suggested to each group by a dittoed memo. Here are several possibilities:

1. How did each "teacher" feel in this situation? Could his feelings (of threat or defensiveness, for example) cause him to make mistakes in handling the group?

2. Which "teacher" seemed least bothered by the "students'" reactions, or was most successful in handling them? Why?
3. How can resistance or indifference best be handled when they occur in a group? Are they ever completely absent in a class? When?
4. How should the teacher handle this group in the future?
5. What are some possible causes or reasons for such attitudes or feelings on the parts of students? Would it be possible to remove these causes?

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William Franzen -- University of Toledo

Programming

The students are directed to program material from selected subject matter fields. The programming to date has been primarily the linear style with few attempts at the brancing style. I feel that this experience to date has been inadequate as the course time has not been properly allocated to deal with the intricacies of programming. We meet only twice a week for fifty minutes each session. However, the students have indicated that the experience, along with presented research on programming, has made them considerably more sensitive to the benefits of and awareness of the present "state of the science" of programming. I feel that they are more sensitive to the necessity for specification of teaching objectives and delineation of concepts to be learned through this experience with programming.

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Daniel Neale -- University of Minnesota

Guides for the Development of Programmed Materials

I. Planning the Program

A. Specifying the Desired Terminal Behaviors

1. State the specific responses that constitute the criterion behaviors. Criterion behaviors are behaviors which you will accept as evidence that your objectives have been reached. For clarity, use action verbs like: make, lable, draw, assemble, or write and avoid verbs like: recognize, know, understand, appreciate, etc. The latter verbs are cognitive terms and not observable.

2. State the particular cue-stimuli with which these responses will become associated, for example: "Given a diagram of an automobile motor, the student will...."

3. The desired terminal behaviors should be significant and not trivial. To be able to "Define a verb" or to "List the parts of speech" is trivial if these are the *sole* terminal behaviors. Rote memory skills are all that are necessary. More significant objectives are reflected by behaviors which require application, interpretation, induction, etc.

4. The desired terminal behaviors should actually be elicited during the program. They should also be such that they will be truly observed. An example of an error of this sort is: "The student will go to the zoo and look at the animals."

B. Specifying the Elementary Component Behaviors

1. These are sometimes called "preliminary behaviors," but Lumsdaine's terminology seems clearer. (Lumsdaine, A. A., in *New Teaching Aids*, 1960, p. 150.) State the more elementary behaviors which are necessary for the student to perform before he can achieve the desired terminal behaviors. In this step the program writer works backwards from the terminal behaviors and deduces the discriminations and other response capabilities which the terminal behaviors require. For example, if the terminal behavior is the correct addition of three simple fractions (i.e., 1/4 + 1/6 + 1/2), the programmer tries to think of what behaviors the student might make on the way to making the terminal behavior. Working backwards, he might specify elementary component behaviors such as: (a) the correct addition of pairs of simple fractions, (b) the correct translation of simple fractions into equivalent fractions with different denominators, (c) the specification of lowest common denominators, (d) the correct labeling of parts of fractions as "numerator" and "denominator," (e) the addition of whole numbers, etc.

2. The same four restrictions apply to the elementary component behaviors as applied to the terminal behaviors.

3. From these elementary component behaviors the sequence of instructional frames can be more easily specified.

C. Remarks about Prerequisite Skills

Some description of the students for whom the program is intended and their level of skill would be helpful to the potential user of the program.

D. Directions to the Students

Clear, brief directions to the student should be included so that he will have no difficulties in proceeding with the program.

II. Construction of the Frames

A. Determine the sequencing or organizational requirements of the task.

B. Break material down into stimulus-response elements.

C. Keep the responses simple.

D. Provide for immediate knowledge of results.

E. Require significant responses.

F. Use small steps between frames.

G. Repeat with variations in stimuli and in responses.

H. Use concrete examples, especially when introducing new concepts.

I. Use prompts frequently and then fade them in subsequent frames.

J. Require both inductive and deductive reasoning.

K. Present essential information first and then require the student to use it.

L. Augment the program by introducing one relationship at a time so that each is related to or based upon those that were previously introduced.

M. In some technical areas it is more useful to begin with an over-all outline and gradually add details. So as to reduce interference, a high level of acquisition should be reached before the new material is brought in.

N. Try out the provisional program on one or more students and revise it.

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William Franzen -- University of Toledo

Exercise in Test Construction

An attempt has been made to have the students become more competent in presenting material at other levels in the cognitive domain than merely the level of "knowledge" as Bloom presents it. I have used recent materials published by Educational Testing Service; a kit entitled, "Making your own tests," which includes three film strips, three long play records and ditto master for the printing of principles of testing contained therein. This material stresses the levels of "Remembering, Understanding and Thinking." This material, in turn, is assimilated with a study of Bloom's Taxonomy. The students are then directed to apply the information from these sources in attempting to make better tests. This assignment is a two-step process: (a) using material from selected chapters from the textbook; then, (b) using material from their own teaching specialization. The students are expected to prepare test items that deal with each of the levels presented by the ETS material and the Bloom Taxonomy.

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Betty Harrison -- Brigham Young University

Self-Evaluation

We have rating sheets used by the students to evaluate themselves and others in group work presentations and group handouts; and the major assignment is the completion of an autobiography, case study, or observational study. If they do an autobiography, I have worked out an arrangement with the counseling practicum trainees to interpret tests scores and administer additional tests to the students writing autobiographies. If they do a case study, it must be on a school age child who is not a relative, and it must involve visits to parents, classroom teachers, etc. The observational report I have found useful for students who are already working at teaching and taking the educational course late afternoons, evenings, etc., so that they can observe their own students and identify the various concepts and principles being taught in the course.

Other Exercises

We have developed a few supplementary materials, such as a statistics handout; case studies representing various types of classroom control; materials for carrying out classroom experiments, such as star tracing, to illustrate set; Thorndike's line-drawing experiment to illustrate psychomotor or skill factors; incoherent samples of written work to illustrate perceptual organization. We also have the filmstrip and tape developed by the Continuous Progress School to explain their program. I usually have representatives from the counseling service visit class to conduct a role playing session. We have developed a stack of overhead transparencies including a series on statistics, some on motivation, some to be used to illustrate gestalt, trial and error, and conditioning approaches to learning, and a series to use in the interpretation of test scores. We also have a complete set of colored slides illustrating programming and teaching machines.

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David R. Stone -- Utah State University

The Review of Contemporary Research Approach to Enrichment

This is a short illustration of a technique which might be used in college courses in Educational Psychology.

Several supplemental techniques for enriching instruction may be considered. Some major ones are: observation, critical incident films, video tape episodes, multiple-commentary where three specialists comment on a filmed incident, and chart-style visuals. Such do have their place, but a neglected area is in the personal awareness of current research studies. The usual text has a lag. Assigning term papers, while useful, has the limitation of undirected choice by the student.

If you feel that first hand experience in reviewing current research is important, the following procedure will illustrate what might be expected.

Procedure

The instructor reviews the articles in Psychological Abstracts for a selected period. He gives each student in his class 3-5 index numbers, with the volume and year of the abstracts in which it is found. The student goes to the library, looks up the review, and writes a summary on a single sheet of paper. One of the five is selected to be given to the class as a report, and four are handed in with the summary on one side, and a critique on the other by the student.

There are two main purposes: (1) to demonstrate the extensive range of activity going on, (2) to let the student experience the reading of an original which has not been condensed to a line or two in a text.

The procedure shows students how the Psychological Abstracts may be used to enrich classroom instruction. It is to be observed that a wide range of experimental work may be rather easily adapted to school learning.

The three major contributions of educational psychology to education (socialization, learning, measurement) all are represented. The emphasis is on learning, since other courses cover human growth and development and measurement as such.

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Daniel C. Neale -- University of Minnesota

Lab Exercise--Paper Grading

You will grade the two examples of student work shown below. Twenty-five points is the maximum score for the question. The grade is to reflect completeness and accuracy of the answer.

QUESTION - Compare the powers and organization of the central government under the Articles of Confederation with the powers and organization of our own central government today.

Student A

Our government today has a present, a house of representatives, and a sentate. Each state has two senators but the number of representatives is different for each state. This is because of compromise at the Constitutional Convention. The Articles of Confederation had only a Congress and each state had delegates in it and had one vote. This congress couldn't do much of anything because all the states had to say it was all right. Back then Congress couldn't make people obey the law and there wasn't no supreme court to make people obey the law. The Articles of Confederation let Congress declare war, make treaties and borrow money and Congress can do these things today. But Congress then really didn't have any power, it had to ask the states for everything. Today Congress can tell the states what to do and Tax people to raise money they don't have to ask the states to give them money. Once each state could print its own money if it wanted to but today only the U.S. mint can make money.

Student B

There is a very unique difference between the Central Government under the Articles of Conferation and the national Government of today. The Confederation could not tax directly where as the National Government can. The government of today has three different bodies--Legislative, Judicial, and Executive branches. The Confederation had only one branch which had limited powers. The confederate government could not tax the states directly or an individual either. The government of today, however, has the power to tax anyone directly and if they don't respond, the government has the right to put this person in jail until they are willing to pay the taxes. The confederation government was not run nearly as efficiently as the government of today. While they could pass laws (providing most of the states voted with them) the confederate government could not enforce these laws (something which the present day can and does do), they could only hope and urge the states to enforce the laws.

The Youth Activity Program

Each student is required to participate in some kind of youth leadership activity as a regular part of the sequence. Teaching requires more than good academic skills. It also requires complicated leadership abilities and insight into the motives and actions of others. The Youth Activity Requirement is an attempt to provide students with opportunities to develop these abilities by giving them the chance to work with young people in a less formal situation than that of the school. It provides practical experience which should help to make the course work more meaningful, and it is an opportunity to test course principles in a practical situation. At the same time the Youth Activity provides a place in which the prospective teacher's abilities to lead adolescents may be evaluated.

Nature of the requirement. Everyone who is enrolled in Ed. 55 A & B is required to spend a minimum of 20 hours per quarter in an approved Youth Activity. This should in no way be considered a maximum; most activities will require more than this minimum. The 20 plus hours should be spread evenly throughout the quarter, not scheduled so that they are two or three long sessions.

The group with which a student works should consist of a minimum of five and maximums of 25 persons of secondary school age, that is, between 12 and 18 years old. The activity must be supervised by a person who is trained professionally in social work, recreation, etc. A student should have periodic conferences with this supervisor regarding the progress of his group.

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Rolf Muuss -- Goucher College

Selected Laboratory Exercise--Learning

I. I have students draw the face of a telephone dial; especially the relationship between numbers and letters--invariably only a very few students can do it correctly. This illustrates two points:

1. Repetition without motivation or attention is almost useless.
2. It also demonstrates the Gestaltist law of pragnanz, that in memory we make things more symmetrical and simple than they really are.

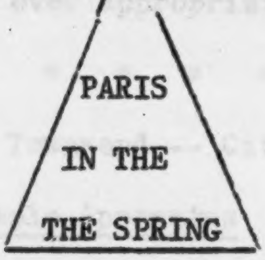
II. I tell students that I will read a list of nine (9) words and a number for each word, and would like them to reproduce afterwards as many associations as they possibly can. E.G.:

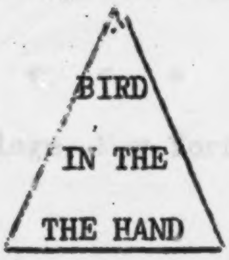
		number of responses
learning	39	49
dinner	26	35
basic	14	25
sex	36	52
mathematics	28	17
kiss	24	35
street	17	29
town	33	24
house	18	64

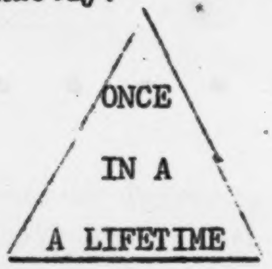
The number of responses (second column) are from three classes of approximately 80 students. This illustrates several things:

1. location in such a list of associations is important: the last item (sometimes the second to the last) and the first are learned easier.
2. What Thorndike calls prepotency of elements--or in analogy to valence value in chemistry, I speak of valence value in words--seem to be operative here: sex, kiss and dinner form associations easier than basic, mathematics, street and town.

III. I write the following three triangles on the blackboard hidden from students' views, expose them for 8-10 seconds and then cover them again, asking students to reproduce them exactly:







Almost all students are able to reproduce the sentences correctly but very few catch the double word in each of these.

This I use to illustrate that Set, Expectation and Disposition influence our perception. Also, the Gestaltist principle of pragnanz seems to be operative. Again, we overlook, especially if pressed for time, irregularities.

IV. I have just made an assignment to my educational psychology class to take a section from the text and make it into a program. I have given students 10 points as to my criteria for evaluation of programs, but so far no feedback, except that students find this a "different and difficult" assignment.

V. I ask students to produce a mental image to the following 10 stimulus words and to write down their image: horse, bell, train, piano, water tap, axe, fire, accident, tape recorder, and ball.

Afterwards I ask them to write down what they believe is their preferred mode of sensory learning: auditory, visual, kinesthetic. Next I have them score the "image description" with the following categories:

1. Seeing object static
2. Seeing object moving
3. Hearing object
4. Kinesthetic experiences with object
5. Taste or smell of object

I have no idea about the validity of the test, but certain observations can be made:

1. There is a substantial degree of agreement between the stated preferred mode of sensory learning and the most frequent "image category" especially in extreme cases.
2. Music students and piano players, have a strong preference for "Hearing objects" and are aware of their auditory preference.
3. In general this demonstrates great individual differences in terms of preferred mode of sensory intake and thus gives some justification for the use of all three in the classroom whenever appropriate.

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Edward A. Townsend -- City College, New York

Use of Simple Apparatus

In simple classroom demonstrations we use finger mazes, a form board, a mirror tracing apparatus, and a timer. Each semester we combine these for demonstrations of the working set, time pressure, the role of verbalization in problem solving, ego-involvement, level of aspiration, etc. Much of this could be done even without equipment. The point is, our students are obligated to realize that we are working with how they learn--not people in remote studies. To us this is the crux of courses in human learning (theoretical or applied). This also avoids any confusion over the applicability of results from rat and pigeon experiments.

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Sydney C. Davis -- Adelphi University

A Sample of Teaching--Analysis

Purpose of Assignment

To help students better comprehend the conditions that facilitate and hinder learning and development.

The Assignment

a. General Information

Each student is to participate in a teaching situation, or the role playing of such a situation, in class.
Students may work alone or in groups of 2 to 5 people.
The teaching sample may be:
 Connected with one's future teaching field.
 Related to this course.
 Something else.
A maximum of 5 minutes is to be scheduled for the teaching sample.

b. Class Presentation

"Set the stage"
Indicate the grade and/or subject matter field.
Give very brief background
-- as to what of relevance has occurred earlier in the term.
List 1 to 3 major kinds of learning and development the teaching sample is to promote
-- on the assumption that this kind of class activity is to be continued for the entire class session and, if desirable, frequently during the entire year.
Carry out the 5-minute activity.

c. Appraising the Teaching Sample

This course focuses upon the nature and causes of learning. It does not chiefly focus upon how to teach. Make sure, therefore, to streamline your appraisals accordingly.

Appraising by the demonstration student(s)

(1) Remind the class of the 1 to 3 major kinds of learning and development the sample situation aimed to foster.
(2) Judge the likely educative effectiveness of the activity-- in terms of criteria stated in "b".
(3) Justify what you said in "(2)" immediately above. Base your reasons upon your readings for the course, class lectures and discussions, and the mimeographed materials Some Conditions Promoting Learning and the "How to foster" sections of Developmental Areas American Schools Should Foster.

Appraising by the class.

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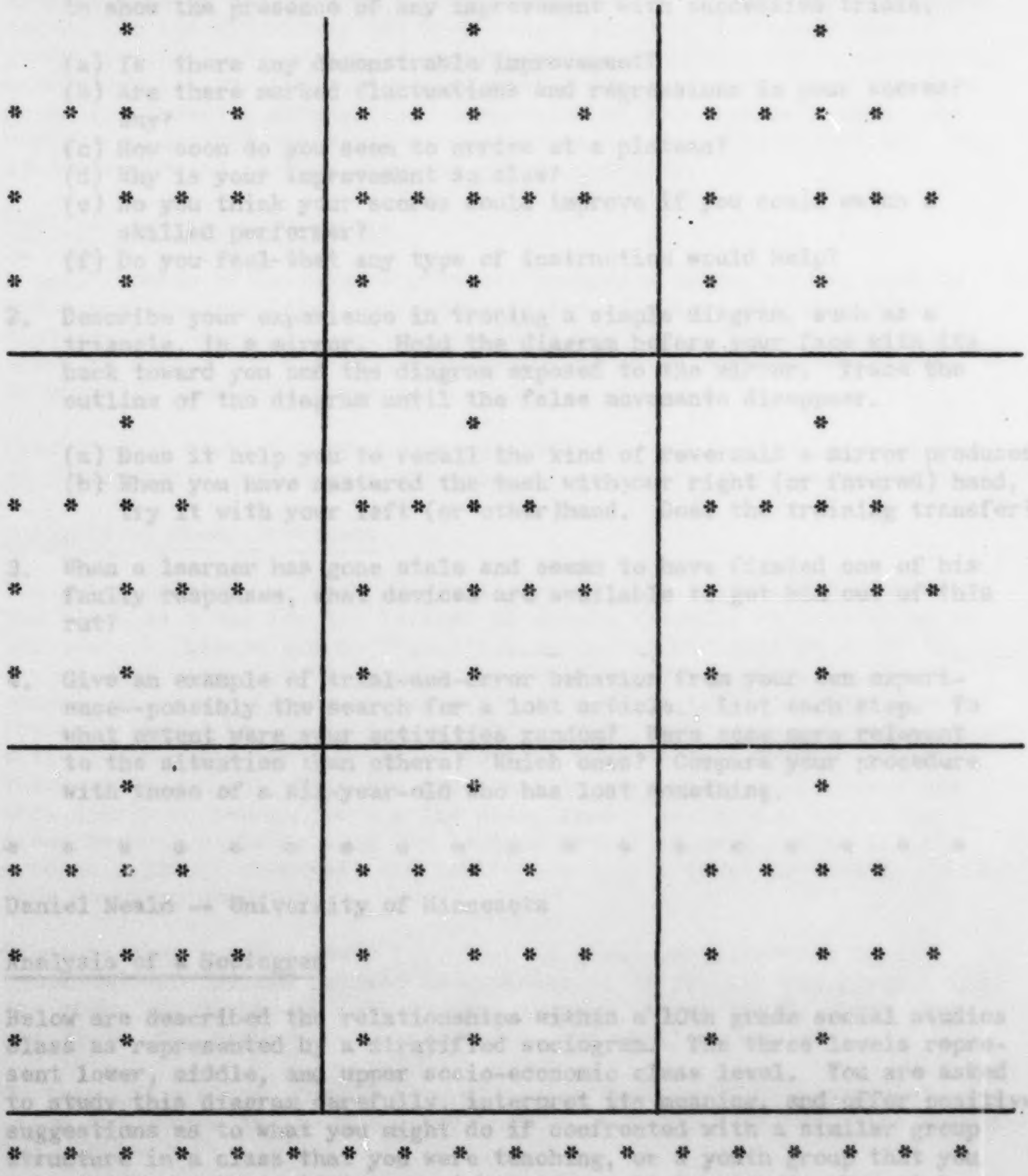
Paul J. Burke -- The City College

Exercise in Problem-Solving

Draw four straight lines, without lifting your pencil, going through all the asterisks.

Verbalize your hypotheses often.



Paul J. Burke -- The City College, New York

Exercises on Trial-and-Error Learning

1. Plot a record of your scores in dart throwing (or a similar skill in which you have had little or no experience), and graph the results to show the presence of any improvement with successive trials.

   (a) Is there any demonstrable improvement?
   (b) Are there marked fluctuations and regressions in your scores? Why?
   (c) How soon do you seem to arrive at a plateau?
   (d) Why is your improvement so slow?
   (e) Do you think your scores would improve if you could watch a skilled performer?
   (f) Do you feel that any type of instruction would help?

2. Describe your experience in tracing a simple diagram, such as a triangle, in a mirror. Hold the diagram before your face with its back toward you and the diagram exposed to the mirror. Trace the outline of the diagram until the false movements disappear.

   (a) Does it help you to recall the kind of reversals a mirror produces?
   (b) When you have mastered the task withyour right (or favored) hand, try it with your left (or other)hand. Does the training transfer?

3. When a learner has gone stale and seems to have fixated one of his faulty responses, what devices are available to get him out of this rut?

4. Give an example of trial-and-error behavior from your own experience--possibly the search for a lost article. List each step. To what extent were your activities random? Were some more relevant to the situation than others? Which ones? Compare your procedure with those of a six-year-old who has lost something.

* *

Daniel Neale -- University of Minnesota

Analysis of a Sociogram

Below are described the relationships within a 10th grade social studies class as represented by a stratified sociogram. The three levels represent lower, middle, and upper socio-economic class level. You are asked to study this diagram carefully, interpret its meaning, and offer positive suggestions as to what you might do if confronted with a similar group structure in a class that you were teaching, or a youth group that you were leading. As a start, you might compare status levels, boy-girl attractions, etc., and look for leaders, cliques, isolates, etc. Do not stop here, but identify other relationships and make further comparisons. If this sociogram were typical, what generalizations would you make about group interactions?

Harold Randall
Mohammed Quereshi -- University of North Dakota

Analysis of Cumulative Records--A Follow-up

In order to demonstrate the usefulness of certain subjective notes and remarks made by teachers on a pupil's cumulative record, the cumulative record for the elementary and high school years of a student now in graduate school was presented anonymously to the students in educational psychology (in the recitation sections). The record was used with the graduate student's permission. Discussion of the teacher's notes and remarks dramatized the worth or worthlessness of such evaluations. The students reacted to this approach quite favorably.

Critical Incidents Technique

A modification of Flanagan's critical incidents technique was used to put across the cognitive, psychomotor, and affective characteristics that earmark successful and unsuccessful teachers. The students were asked to recall and describe such incidents which represented a good or poor job done by a teacher.

This project was not very successful since in most recitation sections it "degenerated into talk about discipline and telling amusing incidents."

Analysis of Group Processes

The group process, or lack of group process, was initially presented to the class as a way for the teacher to create learning situations or to "motivate." Passow and Mackenzie's article was reviewed in order to explain and point out the group effects of various leaders. A further example was given by reading excerpts from "Scientists and Sweetbreads" (Readers Digest No. 2, 1955), an article written by Jeanne Watson. This article discusses the results of several studies done by Kurt Lewin. These studies highlighted the fact that in some situations people are more likely to behave the way the group leader wants them to if the group technique rather than the lecture method is used. This article aroused a lot of interest, and was followed by a short lecture presentation on group processes.

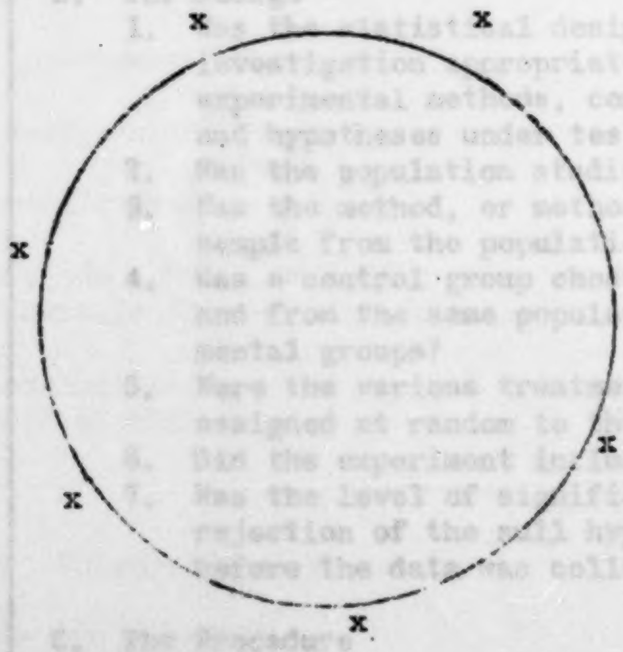
Students then practed their learning. A group participation form (attached) was handed out and an explanation of its use was given. Then the class was broken up into groups--usually three, if the class size was 25-30, two groups if the class size was smaller than 25.

We then, as a class, picked several topics that would be appropriate for group discussion in the present situation, according to the rules enumerated earlier.

Each group then took a turn at sitting down around the table in a room and discussing their topic, while the rest of the class recorded the process on their groups participation forms from the observation window and doorway (from the other side of a one-way vision window). After each group had finished its discussion we returned to the main classroom for an over-all discussion (entire class) of what had gone on in the group, what roles various people were playing, and how the emerging leader did or did not capitalize upon the consistent behavior of certain members.

At the conclusion the main points were briefly summarized.

GROUP-PARTICIPATION FORM



Put the names of group members around the circle. Whenever a person makes a contribution his name is checked.

1. Quantity participation record: put a tally mark after each person's name every time he makes a contribution.

2. Quality participation record: as each person makes his contribution an evaluative mark is put after his name.
   + indicates a contribution that aids the group's thinking.
   - indicates a contribution that does not aid the group's progress.
   0 indicates a remark that neither aided nor hindered.
   ? individual asks a question.

3. Group interaction record: an arrow is used to join the names of individuals whenever they talk to anyone else. Whenever an individual addresses his remarks to the group as a whole, the arrow is pointed out toward the edge of the paper.

W. W. Farquhar
John D. Krumboltz -- Michigan State University

A Check List for Evaluating Experimental Research in Psychology and Education

Satisfactory	Unsatisfactory	Questions
		A. The Problem
		1. Was the problem clearly defined?
		2. Was a verifiable hypothesis formulated?
		3. Was the hypothesis one which was logically deduced from some theory (or problem)?
		B. The Design
		1. Was the statistical design employed in the investigation appropriate to the particular experimental methods, conditions, subjects and hypotheses under test?
		2. Was the population studied clearly specified?
		3. Was the method, or methods, of drawing a sample from the population clearly specified?
		4. Was a control group chosen in the same manner and from the same population as the experimental groups?
		5. Were the various treatments (including control) assigned at random to the groups?
		6. Did the experiment include a replication?
		7. Was the level of significance necessary for rejection of the null hypotheses specified before the data was collected and analyzed?
		C. The Procedure
		1. Were the treatments and methods of collecting data described so that an independent investigator could replicate the experiment?
		2. Were the size and characteristics of the sample adequately described?
		3. Were the treatments administered so that extraneous sources of error were either held constant for all treatment and control groups or randomized among subjects within all groups?
		D. The Analysis
		1. Was the criterion of evaluation appropriate to the objectives of the study?
		2. Was any evidence of the reliability of the criterion measure given for the experimental sample?
		3. Were the statistical assumptions which are necessary for a valid test of the hypotheses satisfied?

Satisfactory	Unsatisfactory	Questions
		E. The Interpretation
		1. Were the conclusions consistent with the obtained results?
		2. Were generalizations confined to the population from which the sample was drawn?

From: Journal of Educational Research. Madison, Wisconsin: Dembar Publications, Inc., May, 1959, Vol. 52, No. 9, p. 354.

RESEARCH REPORT

A. State, in correct form, the bibliographic information for the research study you are describing.

B. What are the hypotheses of the study?

C. Describe the design of the study.

D. What are the conclusions?

E. What, precisely, do you see to be the value of this study in the education or socialization of the adolescent?

F. What is your evaluation, pro and con, of this study? (To be answered on back of this sheet.)

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Herbert Klausmeier, University of Wisconsin

Development of Learning Material

Outcomes of learning include facts, concepts, skills, attitudes, and personality traits. Assume that there are certain outcomes that you wish students of some age, grade, or developmental level to acquire initially or to develop more fully. Prepare instructional material which the pupils could use independently to acquire or develop the outcome. The instructional material might take the form of a regular book, textbook, programed instruction of the Skinner type, programed instruction of the Crowder type, textbook type material and accompanying multiple-choice questions, taped foreign languages, or some other type of material.

After developing the material, try it out with one or more students to estimate how highly the students are motivated to learn from it, how well they learn initially, how well they remember, and how well they can use the newly acquired outcomes in other situations. A pre- and a post-test may be useful in ascertaining how well the students learn initia[illegible] Observation and questioning will be useful in estimating the extent of motivation. Items may also be written to assess transfer.

Those preparing for student teaching may develop the material related to the subject and grade level prior to student teaching and try it out during student teaching. Others may develop material related to this course and try it out with students in this course. Anyone may, however, utilize whatever subject field he chooses and try out the material with whomever he chooses. The final report should include the material, the description of the try-out, the estimate of motivation, retention, and transfer.

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Herbert Klausmeier -- University of Wisconsin

Writing Test Items

Related to any area of knowledge in which you are interested, write a short statement of objectives and an objective type test of 40 or more items, and a rating scale or two or three essay questions to measure the outcomes. Indicate the type of outcome each test is intended to measure. One of the better available sources of information about objective test items is Ebel, listed in the references. Ebel specifies six types of items, with examples:

1. Content Detail

In an experiment in which anti-aircraft gunners were taught to estimate the distance of approaching planes, it was found that

(1) the responses were made on the basis of interrelationships among several stimuli.
(2) gunners could learn to estimate range accurately after a 24-hour period.
(3) perceptual reactions depended solely upon the size of the object in gunsight.
(4) the gunners had a tendency to hold their fire until an approaching plane was too close.

2. Vocabulary

Extreme attempts to overcome feelings of inferiority are the main characteristics of

(1) aggression
(2) regression
(3) over-compensation
(4) compensation

3. Fact

Aphasia is usually associated with damage of

(1) the right hemisphere
(2) the left hemisphere
(3) prefrontal lobes
(4) frontal lobes

4. Generalization

Studies of personality as a function of birth order have shown that
(1) personality is not related to birth order
(2) the oldest child is usually most independent
(3) the youngest child is usually spoiled
(4) those children who are neither oldest nor youngest are best adjusted.

5. Understanding

Scientists usually work in the artificial environment of the laboratory because
(1) measurements can be made more precisely in the laboratory
(2) statements of truth cannot be made unless they have been verified in the laboratory
(3) events in nature never repeat themselves, and an event must be repeated to be studied
(4) sources of variation in the phenomena studied can be controlled in the laboratory.

6. Application

If a student had at his disposal two hours in which to memorize long lists of dates and foreign words, it would probably be most advantageous for him to
(1) spend the whole two hours in a single unit of concentrated study
(2) divide his study into unit of about 5 minutes each
(3) divide his study into two units of one hour each
(4) sutyd in units of from 20 to 30 minutes each.

Try your test out with at least one student and have him give a brief evaluative comment concerning each item. Then report your own final judgment about each item. If a group is available, administer the test to the group and report your judgments about each item.

References

J. A. Green, *Teacher-made Tests*, Harper & Row, 1963, indicates 20 types of essay questions according to their purpose. Some of these follow:

New methods of procedure

Suggest a plan for proving the truth or falsity of some hypothesis.

Application of rules or principles in these situations.

Would you weigh more or less on the moon? Why?

Statement of relationship.

Why is knowledge of botany helpful in studying agriculture?

Causes or effects

Why has the Senate become a much more powerful body than the House of Representatives?

Comparison of two things on a single designated basis.

Compare Eliot and Thackeray in ability in character delineation.

Evaluating recall-basis given.

Name the three statesmen who have had the greatest influence on economic legislation in the United States.

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EVALUATION, TESTS AND QUIZZES

Clifford Houston -- University of Colorado

The only other "innovation" that I can report is my customary practice of giving my Ed. Psych. a "Take Home Final" that I believe to be a very satisfying gestalt-closure. At the beginning of each semester I tell my students that prior to the final examination I'll give them the questions but in the meantime I want each of them to "choose" an elementary grade or secondary school subject which they plan (tentatively) to teach. A month before the final exam I give the students the essay questions and tell them to develop answers for the grade or subject which they expect to "teach," and come to the exam (without books or notes) prepared to give good answers. The students like this system although they have to work very hard in order to prepare.

I separate the exam papers by elementary school grades and high school subjects and read them by groups. I get excellent answers which really aren't very hard to read, or evaluate, because they are so interesting and different from each other.

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Paul J. Burke -- The City College

Exercises in Motivation

1. Occasionally a teacher will say to a student who disclaims all interest: "If you would only put forth more effort, you might develop an interest."

   (a) Is this advice ever psychologically sound?
   (b) Does it have any merit as practical advice?

   Do not be satisfied with a quick, superficial answer--examine both sides of the question and qualify your statements accordingly.

2. There is an obvious difficulty in using competitive marking or grading as a motivating device when there is a sizable range of abilities in the class--in fact, all forms of competition are more difficult to use in this situation.

   (a) How can such difficulties be overcome or minimized? (List as many specific procedures as you can think of.)
   (b) What are the advantages and drawbacks of competition in the classroom?

3. Recall some class in which the teacher tried to get you interested in a subject. To what needs or interests did the teacher appeal? What other need might have provided a more effective motivation in your case? (Do not spend much time on the anecdote or description

of the incidentals involved. The main point is your analysis of the situation ad how it might have been handled better.)

4. In list form (not essay), indicate those factors which lead to a lack of motivation for school learning among many members of minority racial groups. (It is recognized that some of the same conditions serve as a spur to achievement for other children from the same race; and it is also recognized that the same conditions may exist in part for members of other groups.)

Answer one of these four questions in 500 words or less. This will require utmost condensation of verbiage. Use Outline or list form wherever possible. Type, if possible, using double-spacing.

Exercises in Conditioning

1. Outline in detail how a teacher might use conditioning techniques to help a child to overcome a fear (such as fear of speaking before a group, or fear of snakes).

2. Describe briefly an episode which might establish a conditioned response to members of a race, religion, or social group.
   How is the process of generalization involved in this?
   We are said to respond selectively at times, i.e., to choose among various stimuli the ones to which we will respond. How does this contribute to the durability of prejudices?
   How can conditioning principles be used to weaken or eliminate such prejudices?

3. Select several newspaper and magazine advertisements which you consider highly effective.
   Analyze carefully the conditioned responses which the advertisement manipulates to achieve its effect. (Attach the clippings securely to your answer sheet.)

4. Analyze a political speech to show how the speaker makes use of symbols or loaded words to which the members of his audience possess conditioned responses. (Attach a copy of the speech to your answer paper, or quote the pertinent parts of the speech verbatim.)

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Janet A. Kelley -- The City College, New York

Final Examination

Part I

For each of the four items below, in the space provided define each concept and explain the essential distinction or relationship between them.

1. Maturation vs. learning.
   ____
2. Incidental vs. planned learning.
   ____
3. Goals in learning vs. extrinsic motivation.
   ____
4. Memorization vs. problem solving.
   ____

Part II

For each of the principles of learning stated below, give one illustration to show clearly how it can be utilized in the teaching of mathematics.

1. Learning varies with each child.
2. Learning follows a sequence.
3. There should be readiness for learning.
4. The child must actively participate in learning.

Part III

State two essential factors, concepts, or principles of learning that are being overlooked in the case of each of these students.

Joe wants to be an engineer and is working hard but is unable to pass mathematics.
(1)__________ (2)__________

Mary is an excellent student in senior high school and would like to go to college but her parents, who are of foreign birth, believe that she has gone to school "long enough for a girl" and want her to drop out and get a job.
(1)__________ (2)__________

George has taken all his final examinations in college but one. The latter was scheduled a week later than the others. He accepts an invitation from his friends to go on a fishing trip for the week. However, before he left he studied quite hard all evening for his last final so that he would be prepared the day he returned for the test. He failed the examination.
(1)__________ (2)__________

Part IV

Below are two statements of situations in the teaching and learning of "Creative Expression in Poetry? and "Curriculum, a Vital Force in the Lives of Pupils" which has many implications for the way children learn, and the psychology of learning as applied to method of teaching and curricular approach. Select one situation and do the following:

(a) Outline fifteen (15) learning concepts which have been derived from theories of modern researches in education that appear in this example and explain each briefly as to how it has a relationship in the situation.

Of the fifteen learning concepts, nine (9) should be in relation to how the children learned; three (3) should be in relation to the psychology of learning in the method the teacher used; and three (3) in relation to the psychology of learning involved in the development of curriculum.

(Elementary majors may want to choose "Creative Expression in Poetry" and secondary majors "Curriculum, a Vital Force in the Lives of Pupils"--but it is optional.)

Situation A - Creative Expression in Poetry

Amy Lewis, the teacher, relates:

When my group of eight-year-olds were setting up plans, together with my help, at the beginning of the school term, the suggestion was made that perhaps a time for enjoying poems might be a nice part of the program. The children said they did not like poems, they liked stories. Several times I started to read poems to them but some of them would always say, "Oh, let's have a story." So, for the rest of the quarter, poems were omitted. In the winter quarter I read them some of the famous poems for children and also poems that other children had written, a few at a time. They would usually ask the name of the child who wrote a poem and how old he was. I also found humorous ones and narrative ones that I thought might appeal. I asked them one day if any of them had favorites they would like to share. A child suggested that a time might be set aside on Friday afternoons to share poems. The majority of the group thought this a good idea, so the decision was made to try it for a while. The children began checking out poetry books from the room library and the school library. I contributed poems that had a very appealing rhythm and some that did not rhyme at all. They sometimes talked about why they especially liked certain poems, and at other times no comments were made. They just enjoyed reading and listening to each other. I noticed a number of children began joining in and saying parts of familiar ones. The number of children contributing to the sharing time kept increasing.

One day, shortly after a trip to the fire station, Anne said, "I'm going to write a poem in work period." During work period several times she asked children near her for a word to rhyme with another one. At the end of the period she came forth with the following poem:

Clang, clang, hear the bell!
Here they come, pell, mell.
Rushing quickly down the street
Warning people that they meet.
Get out of the way; Get out of the way!
For we are going to a fire today.

I helped her to write it in the correct order. This seemed to stimulate others to try and many poems were written ranging from just jinglets to some with very lovely thoughts. One day in music time they recognized the words of a song in a book as a poem with which they were familiar. Some child suggested that they might put tunes to their poems. The music teacher asked them if they would like to try and told them they might be thinking of tunes for their poems. The first day they tried to set a poem to music, a child said her poem. Then they all said it together and clapped with appropriate rhythm. The teacher asked for volunteers to put a tune to the first line, etc.

Re: Ways the Children Learned (concept in relation to situation).
1. thru 9.

Re: Methods Used by Teacher
1. thru 3.

Re: Development of Curriculum
1. thru 3.

Situation B - Curriculum, a Vital Force in Lives of Pupils

A high school teacher in New York related how she made English a vital force in the lives of twenty-six (26) non-college pupils (boys) whose behavior in her English IV class reflected their unverbalized reaction, "Why do we have to take English?" The situation troubled yet challenged her. Weeks went by during which time she learned to know the boys, to hear of their hobbies, their interests in sports, their Saturday jobs. It was their interest in the work world that suggested an idea to her.

One day she asked if they had ever considered whether the men they knew in jobs had any use for aspects of English such as those met in the classroom. Skeptical looks greeted this suggestion. What possible use could garagemen, bricklayers, and barbers have for classroom English? "Would you be willing to ask such workers what aspects of English they actually use?" she queried. The boys agreed that they would ask the men they knew.

First the teacher had each boy suggest a trade, occupation, or profession he would select as his field of investigation (he would need to know someone in the occupation whom he could interview). To eliminate a duplication, suggested occupations were listed on the board, with the name of a volunteer for each. An impressive variety of occupations appeared on the board. Questions were suggested by the class to be used in the interviews, such as: How important in your job is it for you to be able to read printed instructions? To follow oral ones? To convince or to persuade others? To write letters? To fill out forms?

When the time came for a report on the results of the interviews, a new sense of responsibility and poise was noted on the part of the pupils. Boys who before had been reluctant to talk to the group forgot themselves in their enthusiasm to report their findings; a new fluency came into their speech. What did they discover about English as a vital force in life? Gas-station men, barbers, truckdrivers, policemen, and many others reported that they needed proper English to enable them to speak convincingly to many types of people. Factory-workers, office-workers, building contractors, told them how necessary it was to be able to fill out forms correctly. Men who owned small businesses reported how they used English to write letters, order goods, register complaints, solicit business. The reports continued to pile up evidence that English is a very practical subject. After hearing the reports, the boys took a new interest in English. Together the class built units in speech, vocabulary, and letter-writing based on their findings. The work was attacked with new vigor--English had become vital to these boys!

Re: Ways the Children Learned (concepts in relationship to situation)
1. thru 9.

Re: Methods Used by Teacher
1. thru 3.

Re: Development of Curriculum
1. thru 3.

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Janet A. Kelley -- The City College, New York

Quiz on Pavlov and Guthrie

1. According to Pavlov the association is between:

2. According to Guthrie the association is between:

3. The child who has continued his schooling into college level is likely to be very vague about the names and events of his 5th grade experience. According to Guthrie, this is an example of:

4. Little Jane's father was in the habit of bringing her candy when he came home each evening. She would run out to meet him each evening. One day she got sick from the candy. The father decides he will not bring her candy for awhile. Jane, however, ran out as usual each evening to meet him. This continued for a week, then she stopped running to meet him. The father was called away on business for several weeks. When he returned she ran out to meet him. This illustrates what 2 concepts:

5. What is Guthrie's position on reward, compared with Pavlov and Thorndike?

Quiz on Hull

1. State precisely in one sentence, Hull's theory of learning from the four key concepts of drive, cue, response, reward.

2. While reinforcement to Skinner builds response strength, to Hull reinforcement builds ________. What kind of strength?

3. In one line, how does Hull explain motivation?

4. Whereas a teacher usually rings a bell to call the children from the schoolyard at first, later he needs only to appear at a certain time to have children return to the classroom. This is an example of what concept of Hull?

5. A freshman college student entering college finds it difficult to study history effectively. Each evening the first week he outlines in detail every paragraph so that he could know what the professor wants. He discovers that he is still not getting along successfully. He learns in class that details are not asked for. He then outlines by pages but the professor does not seem to go by pages. He then outlines the main events of the whole chapter. This is better. Finally, he realizes that the professor puts the main points within a pattern or patterns. The professor praises him for this insight. He is now getting along fine, immediately realizing that main points must be related to the whole lesson, that he must discover the pattern and relate it to past events. He continues this method the rest of the term which seems more sensible and takes less time. He is quite elated when he sees the proper relationships of facts and the preferred order of arriving at them. He also finds that in his English class that he can relate the author's life to poems. The English professor commends his insight. Immediately he finds that he can go back and get all the main events in English poems, and see their varied relationships to author's life--this was a skill he learned so well in his history class. What concepts of Hull are illustrated here?

   1. thru 3.

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Donald B. Black -- University of Alberta

Directions: Answer all questions briefly in the area provided. If additional space is needed, use the back of the page.

Answer all questions using as example the following class which is described below.

Miss Jones has a typical Grade 6 class. She teaches all parts of the curriculum except Music and Physical Education. Presently, she is teaching arithmetic, and ratio in particular. She has had the children draw circles, squares, etc., and divide them, and subdivide the parts. She used a flannel board as well as the blackboard for demonstration. At this very moment, she is having the class do an exercise on ratio from their text in their notebooks.

MARKS

1. State the concept, law or principle of the following theorists which BEST describe the purpose of the exercise the class is doing.

2 (a) Thorndike: ________
2 (b) Skinner: ________
2 (c) Hull: ________

What qualifications or suggestions for Miss Jones' behavior would you suggest to make the learning situation of the exercise more effective? State the concept, law or principle underlying your recommendation.

2+2 (a) Thorndike: ________
2+3 (b) Skinner: ________
2+3 (c) Hull: ________

2. In her teaching of ratio, how would you distinguish between an approach favoring Guthrie's theory of learning and that of Thorndike? What would they have in common? Make the distinction between their rationale for their points of agreement.

4 Agreement: ________
4 Difference: ________

3. Miss Jones found at the end of the period, some of the children did not understand how to work ratio. How would the following theorists account for this?

4 (a) Miller: ________
4 (b) Thorndike: ________
4 (c) How would the replies of Skinner and Guthrie differ on this question? ________

4. When Miss Jones questioned the children (review) before teaching arithmetic the next day, she found many of the children had forgotten how to do ratio. How would the following explain this?

4 (a) Watson: ________
4 (b) Guthrie: ________
4 (c) Hull: ________

5. Miss Jones was out very very late last night. In her five years as a teacher, this was the first time she had ever come to school feeling so tired. She was upset about the poor performance of her class during the exercise period. She pointed out to the class that she "never had such a dumb bunch in her career as a teacher," and for this they would have twenty (20) ratio questions to do for homework that night! Feeling remorse after this her first outburst in the classroom since last spring, she assigned twenty (20) fairly easy questions.

In terms of the following theorists, would this homework assignment be desirable? Give your reasons (in terms of the theorist concerned) for your answer.

4 (a) Thorndike: ________
4 (b) Skinner: ________
4 (c) Guthrie: ________
4 (d) Hull: ________

6. Miss Jones' class has a distribution of intelligent quotient scores with a mean of 102 and a SD of 10. The distribution is normal. At the end of the unit on ratio, she gave an achievement test of 40 items to see how well they have learned. She found the median score on the test to be 30. The mean score was 25 with a standard deviation of 6. The test scores correlate .30 with the I.Q. scores.

3 (a) What is the shape of the distribution of achievement test scores? Should she be pleased with her efforts or should she be concerned? Give your reasons for your latter answer.

____

3 (b) Should she use the mean and standard deviation to calculate standard scores or should she report scores as percentiles? Why?

____

3 (c) Is there a good correlation between I.Q.'s and test scores? How would you account for this?

____

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Douglas Porter -- Harvard University

Psychology and Measurement (Sample Quiz Question)

Assume that you are in the animal training business and have just bought a dog act from a gentleman who is retiring from the field. The act consists of five dachshunds who play school. That is, when the trainer gives a simple arithmetic problem, one or more of the dogs raise a forepaw. When called upon by name the dog selected gives an answer to the problem by speaking--barking an appropriate number of times. You soon discover why the former owner retired; one of the performing dogs is quite precocious and incorrigible. He speaks out of turn and knows all of the answers. Sometimes this behavior puts the whole act out of kilter and you end up with a mess of angry, barking dogs. Because you can't break up the act and substitute another dog (for sentimental and practical reasons), special training has to be given the misbehaving individual.

This problem has three parts (which may be handled together or separately).

(1) Describe the procedure which will be followed in training the deviant canine to speak only when called upon.

(2) Assume that you face a similar situation in a small class of students: one individual who speaks out of turn has to be controlled for the good of the entire endeavor. Describe in what ways, if any, your handling of the human being in the school situation would differ from the animal training situation, and why.

(3) There are various alternative training procedures which could be followed. Discuss the advantages and disadvantages of at least two such procedures.

Any assumptions you make about the learning histories of the "bad" individuals must be made explicit. Any training techniques which will not permanently damage your valuable students (canine and anthropoid) are permissible.

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Daniel Neale -- University of Minnesota

Name ______________________

1. ______________________conditinning

Before: $CS\text{-}\begin{matrix}R_1\\R_2\\R_3\end{matrix} - UCS - UCR$ After: $CS - CR - UCS - UCR$

2. ______________________conditioning:

Before: $CS - UCS - UCR$ After: $CS - CR - UCS - UCR$

3. In the space below, copy the appropriate diagram and label its parts in order to account for the following. (For labels use: Click, food, satisfaction):

Pigeon is placed in box where he moves about "randomly."
When he turns left, Experimenter reinforces him with food.
Subsequently, when placed in the box, the pigeon turns to the left.

4. Do the same (labeling: box, food, satisfaction, left turn) for the following:
   Pigeon is placed in box where he moves about "randomly." When he turns left, Experimenter reinforces him with food. Subsequently, when placed in the box, the pigeon turns to the left.

5. Diagram the following (labeling: "2+2," approval, satisfaction):
   A student is in an arithmetic class. He is given "2+2"; he responds "5," "3," and then "4." Teacher says "yes!," and student is reinforced by the teacher's approval. Next time the student is given "2+2," he responds "4."

6. Diagram the following (labeling: "2+2," approval, satisfaction):
   Student in arithmetic class is given "2+2"; he responds "5," "3," and then "4." Teacher says "Yes!", and student is reinforced by teacher's approval. Next time student is given "2+2," he experiences pleasure.

7. Using two diagrams show two S-R relationships developed in the following situation:
   Child experiences pleasure when held. Mother reads to child while holding child on lap. Child holds book while parent reads. Subsequently, child sees book, experiences pleasure, and picks it up.

8. Name one kind of school learning which might be learned in a manner similar to classical conditioning.

9-10. Name two kinds of school learning which might be learned in a manner similar to instrumental conditioning.
9.
10.

11-14. Name four differences between the two forms of learning.
11.
12.
13.
14.

15-17. Name three similarities.
15.
16.
17.

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Gerald Larson -- Indiana University

1. Mr. and Mrs. Kidd are both talented musicians. Their daughter, Ima Kidd, is also a talented musician. Would you attribute Ima's success primarily to heredity or environment? Defend your answer.
2. As a child, Mr. I. M. Able walked by himself at 13 months, yet he didn't learn to skip until he was six. What developmental principles would help you explain this phenomenon?
3. Jealousy is said to be a "sinister" emotion because it runs so deep. What are some of the ways that children may express their jealousy that alert teachers or parents may recognize?
4. What reasons can you see as a potential teacher to justify a recess period? Should chilren consistently be allowed to choose their own activities? Defend your answer.
5. Mr. Powers has a son, Will Powers, who has been blessed with only a moderate amount of intelligence. To help motivate his son, Mr. Powers has promised Will $1.00 for every "A" on his report card. Will has been generally unsuccessful in his attempts to make money. List all the ways you can think of for Will to adjust to this frustration. Describe briefly how each method would work in this situation.

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Gerald Larson -- Indiana University

1. Maturation and learning are important aspects of mental and motor development.
   (a) Describe briefly two studies that illustrate the influence of maturation on performance.
   (b) Show how a good 1st grade reading readiness program takes maturation and learning into consideration.
2. A number of attempts have been made to explain the role of heredity and environment in the developmental process.
   (a) What are the essential differences between the preformationist and predeterminist points of view?
   (b) What roles are assigned to heredity and environment by the current "interaction" approach?
3. What helpful suggestions could you give the parents of a small child who were genuinely interested in facilitating the vocabulary and speech development of the child.
4. How would you defend recess to an uninformed parent of a six-year-old who felt that "kiddie games" was a waste of time? Do you feel that the teacher should consistently allow children to choose their own games? Defend your answer.

5. Restlessness, moodiness, ambivalence, and boy-girl conflicts characteristically develop during the preadolescent period. What factors contribute to the development of these characteristics?

6. Accidents are the primary cause of death during adolescence. What factors contribute to this accident proneness during adolescence?

7. Adolescence is characteristically a period of extreme conformity to the peer group. Why?

8. A famous cliche goes: "Things aren't always the way they appear to be." Do you agree or disagree? Support your answer.

9. One way to establish discipline is to appeal to the self-respect of the students.
   (a) Do you feel this method works equally well for all socioeconomic levels? Support your answer.
   (b) What do you see as the essential aspects of good discipline?

10. Watson compared 44 children raised in a "good" home, but strictly disciplined manner with 34 children raised in "good" homes, but under more permissive conditions. The children did not differ in self-control or happiness. Significant differences in personality characteristics were found in several variables, however. What were these differences and which group did each characteristic favor?

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SUGGESTIONS FOR RESEARCH

William L. Franzen -- University of Toledo

It is my hope that research will be undertaken to determine the effectiveness in the classroom setting of principles of learning as have evolved from experimentation in the animal laboratory. There is a critical need to effect a theory of instruction incorporating the interdependence in human learning of the cognitive, affective and psychomotor domains.

I am particularly interested in conducting research on the effectiveness of an instructional setting that would incorporate self-directed learning, as a means of attending to individual differences, at the university level. I feel confident that attention to individual differences is frequently ignored at the university level. This research would assess the effectiveness, also, of various media of communication in learning, viz., programing, TV, and various arrangements of teaching in teams.

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Betty D. Harrison -- Brigham Young University

There is a great deal of research that needs to be done in connection with the educational psychology courses. Unfortunately, under the pressures of dissertations, training new faculty members to teach the course, etc., not much is being done at the present time. However, my future plans are to try a laboratory setting for teaching educational psychology. Students frequently comment that they would like to have had some of the information prior to student teaching and yet it is obvious that they understand much more after they have done their student teaching. What I would like to see is a situation in which students register for a block of education one semester. This block would include the student teaching experience, the educational philosophy, the analysis of teaching, and the educational psychology. By team teaching, students could have the experiences at a time when they could put them to use, with an opportunity to discuss and review their experiences in developing their own philosophies and theories of education. I would also like to use programed materials for factual portions of the course so that we would have more time for experiences and discussion.

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David R. Stone -- University of Utah

We need to encourage:

A. Demonstrations that clearly and crisply illustrate a learning problem. Large-class memory drums, perceptual effects, reinforcement equipment, meaningful vs. rote learning, and inductive learning, among several topics, should all be organizable into rather striking classroom demonstrations.

B. Studies of content, sequence, and level of difficulty in curricula. If anyone can, the educational psychologist should be able to assess trial curricula, stimulus control, and cognitive development.

C. We need a series of "critical incident" films. It is very hard to arrange visits by large introductory courses. But, we could put them on a schedule where they view large T.V. episodes of behavior.

If it is done, let us make sure that we don't get to overemphasizing the strange or the motivational problem. Let us try to see the drama in day-to-day idea development in the classroom.

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Dick Reed -- University of Miami

(a) With a colleague here I am working on a project to improve self-concepts of low achievers--with, to date, some apparently striking upward changes of their grades as they begin to feel more adequate. Students have been taken from Ed. Psy. classes only--thus far.

(b) I want to explore devices for self-evaluation in a multitude of areas. This idea is not "off the ground" for me yet. Do you have ideas about it? One of the driving forces within it--which I attempt to project to would-be teachers and counselors whom I attempt to instruct is that a future for our way of life depends upon not only a greater degree of self-understanding on everybody's part--which must be taught by parents and teachers to children in the simple and easy ways children can understand--but also upon a greater and greater degree of self-acceptance by all of us. And all of this, of course, is related to EVALUATION! We CAN and MUST make greater headway in these areas.

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Rolf Muus -- Goucher College

As a research project, I would be interested to develop the "Sensory Mode Image Test" further and then give students learning experiences that depend solely on (a) auditory, (b) visual and (c) kinesthetic learning. And see (a) how much evidence is there for the idea of a preferred sensory mode of learning; (b) which sensory mode is preferred by most students? (a refinement might include various combinations.) (c) how much learning in a given sensory mode correlates with the "Sensory Mode Image Test"; (d) how much both correlate with a student's introspective statement about his preferred sensory mode of learning; (e) what proportion of the students fall into a specific category, how many are mixed; (f) further applications to the public school classroom are obvious since a teacher might benefit from knowing the preferred sensory modality of learning of her pupils.

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COMMENTS

Morris Eson -- State University of New York at Albany

When I was responsible for the undergraduate teaching of educational psychology, I introduced an observation period of 2 hours for each of 12 weeks of the 15-week semester. These observations were in classroom settings and the students were required to prepare an observation report which would tie the text and lecture materials to what was seen in the classroom. When the closed-circuit TV was installed, I used to go with the group and discuss what was occurring on the television screen. I have been trying to get the TV people to tape a number of class sessions so that we could select from the recording materials which would tie in directly with the educational psychology discussion. I am convinced that we could get some 30 hours of video tape which would make real the principles and theories in educational psychology. Up to this point I have not succeeded in convincing the powers-that-be that such an effort is feasible but I do not give up easily.

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Efrain Sanchez-Hidalgo -- University of Puerto Rico

I have the impression that there is a certain confusion between courses in educational psychology and courses in developmental psychology. Specifically, we have that situation at our College of Education. During 1961-62, our psychology courses were revised and prospective teachers are now required a course on human growth and development instead of educational psychology. However, if one examines the proposed outline of the course, one has to decide that it is a course on educational psychology. The only thing different is the name of the course. I think that Pressey's contribution in bringing together developmental psychology and the psychology of learning as the main content of educational psychology is an excellent one.

It is my belief that a solid course on educational psychology for teachers requires five hours weekly for a whole academic year, instead of the current three hours. As practically all courses on methods have been eliminated in many colleges and universities, the prospective teacher will have to rely greatly on psychology courses. The teacher needs to have a full mastery of the knowledge available on learning, human growth and development, and personality. I feel this mastery needs to be comparable to the one a physician has about human anatomy.

I think that observation and other laboratory activities should be given a more conspicuous place in our courses. If a five-hour per week course is instituted, at least one hour should be devoted to these activities. Our common lecture-discussion approach needs to be complemented along these lines. A challenging situation will be the need of the instructor to evaluate his students' observations. Planning may be an essential and crucial phase of that observation.

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